

**ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING  
BLOOD AND ORGAN DONATION AMONG THE ADOLESCENTS  
IN NANCHIYAMPALAYAM  
AT DHARAPURAM WITH A VIEW TO  
DEVELOP A SELF INSTRUCTIONAL  
MODULE**

**A DISSERTATION SUBMITTED TO THE TAMILNADU  
DR. MGR MEDICAL UNIVERSITY, CHENNAI IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT  
FOR THE DEGREE OF MASTER OF  
SCIENCE IN NURSING  
2009 – 2011**

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MODULE**

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ACKNOWLEDGEMENT

With deep sense of gratitude I thank the lord God Almighty for his grace and close presence, which strengthened and sustained me through his endeavour.

I extend my heartfelt thanks and gratitude to the **management**, Bishop's College of Nursing for providing an opportunity to undergo this course to up lift my professional life.

My genuine gratitude to our prof. **Mrs. VIJAYARANI PRINCE, M.Sc (N)., M.A., M.A., M.Phil (N).,** principal of Bishop's College of Nursing, Dharapuram for her ceaseless guidance, thoughtful comments, invaluable suggestions, and constant encouragement through out the period of study.

I am highly obligated to **Mr. Johnwesley, Administrator**, Bishop's College of Nursing, Dharapuram for giving me an opportunity undergo this project.

I owe my profound gratitude to the Clinical Guide **Mrs. SheelaRani, M.Sc (N).,** Department of community Health Nursing for her enlightening ideas, constant guidance and encouragement throughout the study.

I am indebted to our class - Co ordinator **Mrs. Glory suramajari M.Sc (N).,** for her expert guidance, Constant support and untiring efforts in the area of research, kindled my spirit and enthusiasm to go ahead and to accomplish this study successfully.

I acknowledge my genuine gratitude to **Dr. Joseph. S, M.B.B.S., FSHM.,** Medical superintendent, C.S.I. Dr.Anne Booth Mission Hospital, Dharapuram, for his extensive guidance, treasured help and experts' opinion in successful completion of the study.

I express my genuine gratitude and obligation to **Dr. Duraisamy Ph.D., (stat).,** for his suggestion in analysis presentation of data.

I extend my gratitude to **Mr. P. Sampath, M.A., M.Ed., (English)** for his valuable English editing.

I extent my thanks to **Mr. D.M. Sentil Kumar, M.A., B.Ed., (Tamil)** for his valuable Tamil editing.

My immense thanks to **librarians of Bishop's College of Nursing** for their Co-operation in procuring books when needed.

I extend my heartfelt thanks to **Mr. Vijay Kumar, Vijay Xerox,** and Dharapuram for their kind co-operation in typing my thesis.

I continue to be indebted to all for their support, guidance and care who directly and indirectly involved in my progress of work and for the successful completion of this thesis.

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## ABSTRACT

The life force in all human beings, regardless of color, race or belief, flows through their arteries and veins; it is red liquid which – depends on whether they are well or ill – bears good and bad tidings. Its various components form a highly developed defense and transport system which gives and saves life.

Life is a dynamic process. It starts from birth and ends in to death. In between comes a different stage of life with different diseases and problems. The medical advancement of modern medicine is organ transplantation which has the power to save the lives of the clients.

The present study was aimed to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to prepare a self instructional module.

The conceptual frame work of the study was based on community Nursing practice model Marilyn E. Parker and Dr. Barry (1996). The research design used for this study was Non experimental descriptive design. Non probability purposive Sampling was used to select 100 samples for the study. The tool used for the study was structured interview schedule to assess knowledge and attitude regarding blood and organ donation. The data gathered were analyzed employing descriptive and inferential statistics.

The findings of the study includes 33% of adolescents had inadequate knowledge and 77% of adolescents had favorable attitude

regarding blood and organ donation. The study revealed that there was positive correlation ( $r=0.268$ ) between the knowledge and attitude scores of blood and organ donation. Distributing SIM regarding blood and organ donation helps the adolescents to have adequate knowledge, awareness and positive attitude regarding blood and organ donation.

# Chapter - I

# Chapter - II

# Chapter - III



# Chapter - IV

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## CHAPTER – I

### INTRODUCTION

*“Don’t take your organs to  
heaven for  
God knows they are needed  
here”  
You Have The Power To  
Donate life*

*Malarvizhi M., (2007)*

### BACKGROUND OF THE STUDY

The life force in all human beings, regardless of color, race or belief, flows through their arteries and veins; it is red liquid which – depends on whether they are well or ill – bears good and bad tidings. Its various components form a highly developed defense and transport system which gives and saves life.

**WHO., (2000)**

Blood is a whole world in itself, each component having a specific job – red blood cells transport oxygen throughout the body; plasma transport proteins, including antibodies and clotting factors, and nutrients like glucose for energy around the body; white blood cells constitute defense mechanism against disease, and platelets ensure that bleeding stops. Blood also carries waste products from all the organs to be evacuated from the body.

**WHO.,(2000)**

Blood is living matter which can be transfused to save lives. Serious loss of blood due to an accident or disease can cause shock. When oxygen is lacking the brain can not function and the heart can not pump. Blood is also the first life – link between a mother and a child. A

person's health can be determined by the state of his or her blood, which reveals the innermost workings of the body. Scientists today can diagnose and investigate complex diseases by examining blood.

**WHO., (2000)**

Healthy person has healthy blood. Healthy blood can and does save lives. Some 40 - 45% of blood is made up of red blood cells which carry oxygen. The remaining 55 - 60% is plasma with a small proportion of white blood cells for defending the body, Clotting factors and platelets. All the different component of blood can be used and each component plays an important role in saving the lives of different individuals in the community.

**WHO .,(2000)**

The average volume of blood in an adult is 4 - 5 liters, or about 8% of the body weight. Blood contains 4 - 5 million red blood cells per mm<sup>3</sup>, 4000 - 11000 white blood cells per mm<sup>3</sup>, and 150,000 - 400,000 platelets per mm<sup>3</sup>, Red blood cells live for about 120 days and white blood cells normally last 3 - 9 days. New blood cells are constantly generated in the body.

**WHO ., (2000)**

Blood donation also called blood banking, refers to the process of collecting, testing, preparing, and storing whole blood and blood components intended primarily for transfusion.

**Wagner H ., (2000)**

Eligibility criteria for blood donation are donor should be between 18 - 55 years of age with a weight of 50 kg or above with normal pulse rate, normal body temperature and normal blood pressure. Both man and women can donate blood. There are only few conditions in which

donors are permanently excluded. The donor with history of epilepsy, psychotic disorders, abnormal bleeding tendencies, severe asthma, cardiovascular disorders, and malignancy is permanently unfit for blood donation. People who have undergone surgery may safely donate Blood after 6 – 12 months. For woman donors who are pregnant or lactating, blood is not taken as their iron reserves are already on the lower side.

**Steener L ., (2007)**

During a donation, one unit (350 (or) 450ml) of blood is with drawn. This blood is replaced by the body, and the donation does not affect one's regular activities at all.

**WHO., (2000)**

Frequency of blood donations varies by the blood component that a person is donating. "Pint" whole blood donors – can donate every 56 days, double red cell donors can donate every 112 days, Red cell / plasma donors – can donate every 56 days. Plasma donors- can donate every 28 days, platelet donors – can donate every 2 – 3 days up to a total of 24 times a year.

The principle organizations that collect blood include nation wide blood banks systems and community blood banks (Which support the needs of patients in their community's hospitals). Typically, blood collected in a geographic region is used with in that region. However, blood banks that have a surplus of blood export their blood to regions suffering shortages.

**Raina V., (2008)**



Blood is universally recognized as the most precious element that sustains life. It saves innumerable lives across the world in a variety of conditions. The need for blood is great on any given day; approximately 39,000 units of Red blood cells are needed. More than 29 million units of blood components are transfused every year.

**Dewani P., (2008)**

Blood availability in India is 3.5 million units per year, falling far short of the requirement of 6 million units per year. Currently there is approximately 1500 blood banks are functioning in the country. Blood banks are licensed by the central Government, but enforcement is left to the state Government. The food and Drug Administration (FDA) is supposed to inspect blood banks and storage facilities (blood is to be stored between 4 and 6 degrees) disposal of expired blood, maintenance of records etc.

**Ranganathan S., (2006)**

The overall estimated annual requirement blood to be 6 million units (1996) for about 960 million people in India. Only 3 million units of blood were reported to be collected from professional voluntary and replacement donors, of this, 1.2 million units were collected from paid professional donors. The estimated short fall is three million units annually.

**Ranganathan S ., (2006)**

World Blood Donor Day is celebrated on 14<sup>th</sup> June every year. It is jointly coordinated by the World Health Organization (WHO), the International Federation of Red Cross and Red Crescent Societies (IFRC), the International Society of Blood Transfusion (ISBT) and the

International Federation of Blood Donor Organizations (IFODS). These partners join together in a global event to raise awareness of the need for safe blood and the importance of regular voluntary blood donation.

WHO., (2010)

In 2010, the theme for World Blood Donor Day is **“New Blood for the World”**. In effect this year’s global campaign is aimed principally at young people. Only 30% of donors today are less than 30 years old. It is therefore important to motivate more young people to become blood donors. Young people can play an important role in saving the lives by donating blood and by speaking to other young people to encourage them to become the blood donors of the next generation.

WHO., (2010)

The theme, Blood Donation: Give!, aims to impart in everyone the importance of ‘sharing is caring’, inspiring care and how this care could save lives while enhancing your personal health through blood donation.

WHO., (2010)

“Not many people are able to truly change the world. Organ donation changes the world for transplant recipients.” A gift of life comes back from the dead to save the life of the terminally ill person ;truly a modern day miracle . we are now at a time of tremendous social change where ordinary individuals are making a powerful statement that they care for their unfortunate brothers and sisters and are willing to reach out to help . much work is required to transform these examples of “Social Awareness” in to a social movement .” our involvement can make a difference.

**Abraham E., (1997)**

Organ donation is the gift of an organ to help some one who needs a transplant. Organ transplantation has greatly improved the grim out look of patients suffering from end stage. Organ failure when one donate life, he gives someone more than restored health and well being, and gives them hope for a better tomorrow. From care giver to patient, donor to recipient, and family to patient, the gift of hope touch us all.

**Malarvizhi M., (2007)**

Life is a dynamic process. It starts from birth and ends in to death. In between come different stages of life with different diseases, and problem. The medical advancement and technology has begun to save lives and the most miraculous medicine is organ transplantation which has the power to save the lives of the clients.

Organs are removed and put in to another person's body. Replacing the organ may be the only treatment of choice for a patient who is chronically ill such as End Stage Renal Disease, tumors of heart, lung and liver etc. Live donor's transplants a viable alternative for patients in need of new organs who however depend entirely on the generosity of donors and their families who are willing to move this life saving gift to recipient who are usually between 18 - 60 yrs. Organ transplantation helps patient to lead an active and normal life. He may live for another 5 to 8 years after transplantation.

**Mariatherese A ., (2009)**

World Organ Donation Day is celebrated on 27<sup>th</sup> November 2010. The theme for the year 2010 is 'Take 2, Give a second chance in life'.

**Ravi T., (2010)**

Attempts at over coming the rejection process were made with some success by using radiation and drugs in late 50's and early 60's but another land mark came in 1978 with the use of a drug called cyclosporine which remarkably improved transplantation results.

In recent decades, major advances have occurred in the field of transplantation. Success rates have improved more patients are considered eligible for organ grafts, and more and more cities have established transplant centers.

**Mark J ., (2008)**

#### **NEED FOR THE STUDY**

Blood transfusion saves thousands of lives every day; Like trauma and burn victims, surgery patients who loose plenty of blood, cancer patients who under go blood depleting chemotherapy and radiation and people with anemic or clotting disorders.

**Patel A ., (2000)**

The availability of blood for operations and transfusions is an essential part of our health care system. Doctors and surgeons rely on blood donations to carry out a wide variety of life saving and life enhancing treatments daily. Components extracted from the blood such as plasma, are also important in treating burns or preventing infection.

Only 6% of the eligible population currently donates blood, but the need for blood transfusions remains consistently high. Anything up to three million donations a year is needed in the UK alone to keep pace with all the treatment that is carried out.

**Steener L ., (2007)**

A regular blood donor's heart (one donating 4-5 times in a year) is much healthier than a non donor's says Dr. Raina "The annual requirement of blood generation in our country is eight million units' where as the generation is only 3.5 million units per annum at present. In Delhi we need over 7 lakh units' where as the generation is a negligible two lakh units. Some times even less. No wonder there is always, a short supply "One campaign is aimed not at the 5% who donate, but the 4.5% whose blood donation would help alleviate the dismal situation in the city. Says Dr. Raina. Safe blood organization is a registered body that creates awareness amongst the masses on the beneficial effects of blood donation.

**Shakeel S.B., (2000)**

There are an estimated 1401 blood banks in the country managed by different agencies; 727 in the public sector and 674 in the private / voluntary sector.

The requirement of blood in the country assessed on the basis of number of hospital beds with criterion as laid down by WHO is 6 - 16 units of blood per hospital bed. It is estimated as 60 lakh units per annum At present the total collection is just about the half an overall shortage of 50 percent . This short fall is estimated to hit about 40 lakh units by the end of the Ninth plan due to increased demands. The gap between the demand & supply has continuously been widening by inappropriate use of blood. Nearly 80 percent of blood is used as single unit transfusion.

**Meshram D., (2000)**

The Tamil Nadu government has launched a blood donation awareness campaign to encourage the youth of the country to donate blood and save lives. The drive is aimed at encouraging the country to donate blood so that safe blood is available for use wherever and whenever it is needed. About 6, 32,000 people donated blood last year, out of which 5, 81,000 people did it voluntarily. The State Government is in the process of creating a Metropolitan Blood Bank at a cost of Rs. Four Billion as part of its move to increase the number of donors and for proper storage of collected blood. A total of 258 blood banks are functioning in the state, out of which 83 are run by the state government, 14 by the central government and the remaining 181 by private organizations.

**Sopundaraya S., (2010)**

A blood donation drive was conducted as per of an NCC training camp organized by the 4 TN Battalion NCC recently at NCP Municipal Higher Secondary school, Dharapuram, Tirupur-dist, Tamilnadu. About 125 units of blood were collected. The name and address of the donor NCC cadets were also registered in the two Government hospitals. The cadets said in the case of emergency they would donate their blood without any hesitation.

**Kaur P., (2010)**

Organ donation saves lives. The use of organ transplantation to treat people with end stage organ failure is medically effective and cost effective and is now considered main stream medicine. Although some persons can not access this treatment for some psychological economical and educational reasons that they can not access other

medical treatment. Most can not gain access because; the necessary ingredient the organ is missing. The united network for organ sharing (UNOS) national waiting list of patients in need of an organ has nearly 90,000 names. Organ specific waiting lists have grown so large that the mean waiting time for a kidney now exceeds 3 years waiting time.

**Shafer T.J ., (2006)**

Eye sight is very important for human life. Blind people in the total population are 70laksh in India. Nearly, 10 lakhs blind people are waiting for corneal transplantation. We are in annual need of 75,000 to 100, 000 corneas. But at present we are receiving, 28, 000 corneas only. In these 28, 000 corneas, 40% to 50% only can be used for corneal transplantation after quality assessment. Remaining quantity of cornea is used for research purposes. So many deaths are taking place every day. If they donate their eyes, we can help so many blind people to get their vision.

**Kumari K.J.,(2009)**

The United Kingdom Transplantation support service Authority (UK TSSA 1999) reports that during the past decade initiatives to recruit individuals to donate their organs for transplantation have identified 8 million people out of a population of 56 million willing to add their name to the NHS organ donor register. A survey of the population reported that 70% of these interviewed stated they would donate their organs (1996).

Currently 7,033 individuals are on the waiting list for organ transplantation, with a total of 3, 528 transplantation operations being performed in 1999. The gap between those waiting for a transplant and a numbers of organs available grown every year.

**Neades B.L ., (2001)**

80, 686 people in the US on the waiting lists as of January 2003. 1, 5557 Tennesseans on the waiting lists as of June 2002. Over 1,000 people are added to the national waiting list each month, 24,076 organ transplant were performed in the US in 2001, 16 people die every day waiting for a life saving organ transplant. In 2001, 5,683 patients in the US died while waiting. Transplants had 160 organs in 2001. 58 patients were transplanted in Tennessee in 2000 – Over 600, 000 people benefit each year from life enhancing tissue transplant. Over 45000 have better vision each year through corneal transplants.

**American Medical Association., (2008)**

Cadaver organ transplant has taken off with thirteen heart transplantations performed at the AIIMS, New Delhi. There is a tremendous potential for cadaver donors with 48,000 fatal automobile accidents every year. AIIMS has launched the organ retrieval & banking organization (ORBO), which is considered as a model coordinating agency for facilitating the task of finding donors and organizing for the transplant in to recipients, starting at Delhi.

The sets of criteria used to define brain death vary from country to country with a basic aim to demonstrate the absences of brain stem functions.

**Agarwal M ., (2001)**

Tamilnadu has been at the forefront of medical care in the country. It was the first state in the country that started a living kidney transplant program. It is also the first state to successfully start the cadaver programme after the passing of the “Transplantation of Human



Organ Act” of 1994 and in the last 5 years has formed a network between hospitals for organ sharing. From the year 2000 to 2006 an organ sharing network was started in Tamilnadu and the facilitator of this programme has been a non-government organization called MOHAN (acronym for Multi Organ Harvesting Aid Network) Foundation. The organs shared during the period number over 460 organs in two regions (both Tamilnadu and Hyderabad). In Tamilnadu the shared organs have included 166 Kidney, 24 livers, 6 hearts, and 180 eyes. In 2003 sharing network was initiated by MOHAN in Hyderabad and to some extent the Tamilnadu model was duplicated. With some success and 96 cadaver organs have been transplanted in the last 3 years.

**Shroffs., (2010)**

Thousands of people need organ transplants in India but the waiting last for organs is arduously long because the brain cadaver donation programme is still in its nascent stage. However, in Tamilnadu the change has happened. Two years ago, Dr. Pushpanjali Ashokan in Tamilnadu donated all organs of her son Hithendran, declared brain dead following a road accident. This incident served as a turning point and the state now ranks number one in multiple organ donation.

**Ashokan P., (2010)**

Last year, Tamilnadu alone registered 59 cadaver transplants. This is 10 times the national average. The state now aims to double its record in the next one year. So far, nearly already half a million people have pledged to donate their organs. Every year there are more than 70,000 brain deaths due to accidents alone. Each of them can save nine

lives and Tamilnadu is certainly setting a life saving model worth replicating in other states.

**Ashokan P., (2010)**

WHO observes International days for blood and organ donation for creating awareness to the people. The National voluntary health organizations like Indian Red cross, Lions club and Rotary club involve themselves in creating awareness to the public regarding the importance of Blood and organ donation. Even with all these initiation by the Government and the voluntary organizations, the researcher observed in the hospitals during the ANP postings, many patients are in need of blood donors. The relatives of patients were searching for donors. This made the investigator to assess the knowledge and attitude regarding blood and organ donation and there by creating awareness regarding the importance of blood and organ donation, which will save the life of people in the correct time.

### **STATEMENT OF THE PROBLEM**

A study to assess the knowledge and attitude regarding blood and organ donation among the adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self instructional module.

### **OBJECTIVES**

1. To assess the knowledge regarding blood and organ donation among adolescents
2. To assess the attitude regarding blood and organ donation among adolescents.
3. To find relationship between knowledge and attitude regarding blood and organ donation among adolescents.

4. To find the association between the level of knowledge regarding blood and organ donation among adolescents with their selected demographic variables.
5. To find the association between the level of attitudes regarding blood and organ donation among adolescents with their selected demographic variables.

## **OPERATIONAL DEFINITION**

### **KNOWLEDGE**

It means information and skills gained through experience or education.

**Elliott J., (2002)**

In this study knowledge refers to the level of understanding of the adolescents regarding blood and organ donations, which is measured by structured knowledge questionnaire and its scores.

### **Attitude**

It means a way of thinking or feeling about someone or something.

**Elliott J., (2002)**

In this study expressed feeling of adolescents regarding blood & organ donation, which is measured by five point likert scale and its scores.

### **Blood donation**

Blood donation is the removal of whole blood or its components such as blood cells and plasma from one person and used for transferring to another person.

**Mckenna C., (2000)**

### **Organ donation**

Organ donation is the removal of specific organs of the human body from a person who has recently died, or from a living donor, for the purpose of transplanting them in to other persons.

**Joseph E.M.,(2004)**

### **Adolescents**

Adolescents have been defined by the world health organization (WHO) as the period of life spanning the ages between 10-19 years.

Early Adolescence period : 12-13 yrs.

Middle Adolescence period: 14 -16 yrs

Late Adolescence period: 17 -21 yrs

**Marlow D.R ., (2006)**

In this study, the adolescents are those who are in the age group of 14 – 21 years.

### **Self instructional module**

It is the printed material consists of pictorial diagrams and informations.

**Basavanthappa B.T.,(2003)**

In this study, it is a printed material consists of pictorial diagrams and informations regarding blood and organ donation which gives more knowledge to the adolescents regarding blood and organ donation.

## **HYPOTHESES**

- H<sub>1</sub> - There will be a significant relationship between the knowledge score and attitude score.
- H<sub>2</sub> - There will be a significant association between knowledge score among adolescents with their selected demographic variables.
- H<sub>3</sub> - There will be a significant association between attitude score among adolescents with their selected demographic variables.

## **ASSUMPTIONS**

- Adolescents may have some knowledge on blood and organ donation.
- Knowledge influences the attitude regarding blood and organ donation.
- Nurses have an important role in educating the adolescents regarding blood and organ donation.

## **DELIMITATION**

The study is delimited to:

- ❖ Sample size was 100.
- ❖ Data collection period was 5 weeks.

## **PROJECTED OUTCOME**

Adequate knowledge regarding blood and organ donation among the adolescents will be improved. There by the knowledge can spread to other members in the community like peer groups, parents,

guardians, community leaders, school and college groups etc. Positive attitude regarding blood and organ donation will make the adolescents to come forward to donate blood and organ whenever there is a need.

## **(ii) CONCEPTUAL FRAME WORK**

### **MODIFIED MARILYN E. PARKER COMMUNITY NURSING PRACTICE MODEL**

Conceptual frame work refers to concepts that offer a framework of proposition for conducting research.

The conceptual frame work set up for the study is modified model of Marilyn E. Parker and Dr. Barry community Nursing practice model. Marilyn and Barry- addresses the essential values that form the basis of the model are (i) respect for person (2) persons are caring, and caring is understood as the essence of nursing; (3) persons are whole and always connected with one another in families and communities. The principles of primary health care from the world Health organization (1978) are the actualizing values. These additional concepts of the model are (1) access; (2) essentiality (3) community participation; (4) empowerment; and (5) intersectoral collaboration. These also guide health care and social service practice.

The model is envisioned as three concentric circles around a core. Envisioning the model, one can appreciate the vibrancy of practice with in the model; the interconnectedness of the core and the circles. The Model calls in to the circles others to create programs and environments to nurtured well being.

### **CORE SERVICES**

Core services are provided at each practice site and illuminate the focus of nursing: nurturing wholeness of persons and environments through caring. These services provided to children, students, school staff, and families from the community, occur in the following and frequently overlapping categories of care: (a) design and coordinate care, (b) primary prevention and health education, (c) secondary prevention/ health screening / early intervention, (d) tertiary prevention / primary care.

In this study, the adolescents between the ages of 14 to 21 residing in Nanchiyampalayam are involved in receiving health education. The primary prevention and health education includes assessment of knowledge and attitude regarding blood and organ donation among the adolescents by structured interview schedule and five point likert scale. The SIM regarding blood and organ donation was planned as Health education.

### **FIRST CIRCLE**

The first circle of the model depicts a widening circle of concern and support for well being of persons and communities. This circle includes persons and groups in each school and community who share concern for the well-being of persons served at the centers. This includes participants in inquiry groups, parents/guardians, school faculty, and non-instructional staff, after-school groups, parent/teacher organizations and school advisory councils. The services provided with in this circle might include; consultation and collaboration: building relationships and community, answering inquires on matters of health and well being, providing in-service and health education, serving on school committees, reviewing policies and procedures.

In this study, parents and guardians of the adolescents are the persons who share the concern for blood and organ donation.

## **SECOND CIRCLE**

The second circle draws attention to the wider context of concern and influence for wellbeing and includes structured and organized groups whose members also share concern for the education and well being of the persons served at the centers but within a wider range or jurisdiction such as district or country.

In this study, the Department of health & family welfare programmes, the voluntary health agencies like lions club and Rotary club are the organized voluntary health agencies, whose members also share concern for providing education and awareness about the importance & need for blood and organ donation.

## **THIRD CIRCLE**

The third circle includes state, regional, national and international organizations with whom we are related in various ways. Services within this circle are focused on consultation and collaboration.

In this study, the International organizations like International Red cross involve with National, State and district organizations and helps in conducting health education programmes and blood donation camps in the local community.

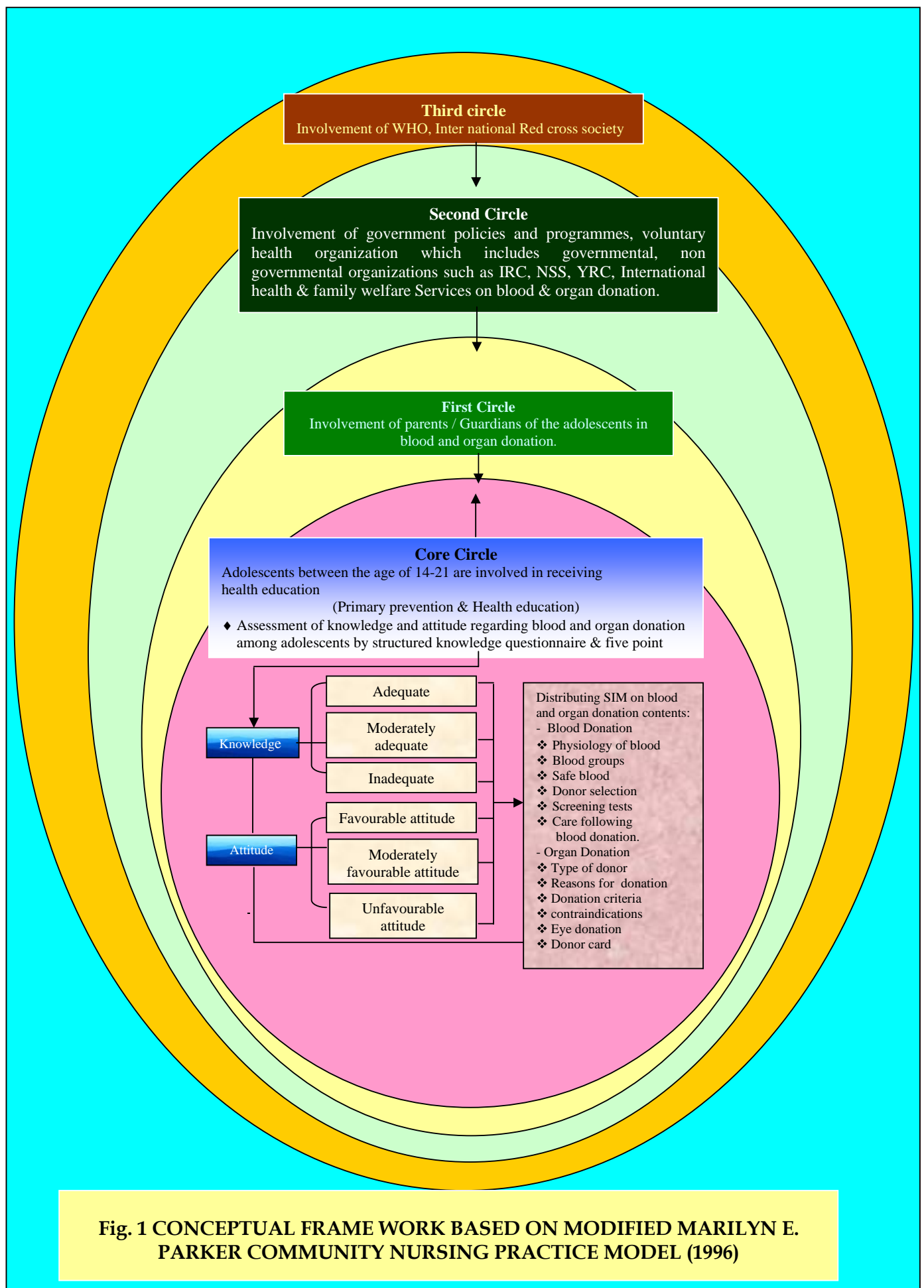
**CONNECTION CORE TO CONCENTRIC CIRCLES** Connections of the core to the concentric circles of services illuminate the appreciation of the complexity of the practice within the community. The core service of consultation and collaboration is a primary focus of practice,



beginning with nursing and social work and extending to participating clients, families, policy makers, funders, and legislators.

Connections to the second circle unfold from the collaborating relationships with colleagues in the health department, schools health care district, and other groups taking the lead with school and community health.

Like the other circles, the third circle depicts the breadth of relationships developed at meetings, and through publications and presentations at local, regional, National and International conferences.



**Fig. 1 CONCEPTUAL FRAME WORK BASED ON MODIFIED MARILYN E. PARKER COMMUNITY NURSING PRACTICE MODEL (1996)**

## **CHAPTER – II**

### **REVIEW OF LITERATURE**

The review of literature for the present study has been done from published articles, text books, reports & med line search.

The review of literature has been organized under the following headings.

#### **Part – I**

- i) Overview
  - a) Blood donation
  - b) Organ donation

#### **Part – II**

- i) Studies related to knowledge and attitude on Blood donation
- ii) Studies related to knowledge and attitude on organ donation

### **PART – I**

#### **i) OVERVIEW OF BLOOD DONATION**

The life source of all human beings regardless of their color, race or beliefs, flowing through their arteries and veins is the red liquid, blood. Blood is a living matter which can be transfused to save lives.

**WHO., (2000)**

#### **DEFINITION**

Blood is a type of connective tissue that performs three major functions; transportation, regulation and protection. The blood is responsible for the transportation of oxygen, nutrients, hormones, and waste products around the body. Blood also plays a role in the regulation of fluid, electrolyte, and acid base balance. Finally the blood has a Protective role in its ability to clot and combat infection.

**Lewis S.L ., (2007)**

## **BLOOD DONATION**

Blood donation is a process by which a blood donor voluntarily has blood drawn for storage in a blood bank, generally for subsequent use in a blood transfusion.

**Baby L ., (2009)**

## **PHYSIOLOGY OF BLOOD**

The average volume of blood in an adult body is 5 -6 liters or about 8 percent of the total body weight. Blood is composed of plasma and blood cells (white blood cells, red blood cells and platelets) Blood contains 4-5 million red blood cells per  $\text{mm}^3$ , 4000 -11000 white blood cells per  $\text{mm}^3$ , 1.5 lakhs platelets per  $\text{mm}^3$ .

**Belcher A.E., (1993)**

Plasma transport proteins, including antibodies clotting factors and nutrients like glucose for energy around the body. Red blood cells transport oxygen throughout the body and have a life of 120 days. White blood cells help for defense Mechanism against diseases and have a life of 3 -9 days. Platelets ensure to stop bleeding and have a life of 5 days. New blood cells are constantly generated in the body.

**Jortora G.J .,(1990)**

## **BLOOD GROUPS**

Human blood is classified in to four, Main groups A, B, AB and O. There are two major blood grouping systems. ABO system (blood group A, B, AB and O) and Rhesus system (Rh Positive and Rh negative) based upon the types of antigen present in the Red Blood cells as well as types of antibody present in the plasma.

**Ross and Wilson ., (1996)**

The annual requirement of blood generation in our country is 8 million units, where as the generation is only 3.5 million units per annum at present.

**Shakeel SB ., (2000)**

People are dying because of lack of blood. Each year approximately 150,000 pregnancy related death could be avoided globally if appropriate transfusion therapy could be carried out.

**WHO., (2000)**

Blood is precious and it is important as part of treatment for accidents , hemorrhages, burns, anemias, major operations, post partum hemorrhage, Leukemia, thalassemias, bleeding diathesis, hemolytic disease of new born.

**Ramlingam V ., (2000)**

### **Safe blood**

Safe blood is blood that does not contain any viruses, Parasites, drugs, alcohol, chemical substances or other extraneous factors that might cause harm, danger or disease to the recipient.

**WHO, (2000)**

Good health contributes to safe blood. Good health depends on life style and disease prevention. Eating a balanced diet with an adequate vitamin and micro nutrient supply, keeping a clean environment and avoiding risk situations help to keep people and their blood healthy. A healthy society means more safe blood and reduced need for blood transfusions.

**WHO., (2000)**

## CRITERIA FOR BLOOD DONATION

1. Age : Between 18 – 65 years
2. Sex : Both sexes. Female should not donate during menstruation. Pregnant ladies Should be deferred from donating blood.
3. Weight : Both sexes above 45 Kg
4. Hemoglobin : Should be with in normal limit (12.5 – 16gm/dl)
5. Blood pressure : Systolic pressure should be 90 – 120 mm of hg and diastolic pressure should be 60– 80 mm of Hg.
6. Surgical procedures : Donors who have undergone operation should be deferred for at least 6 months.
7. Interval : A minimum of 90 days interval should be there from one donation to next donation.
8. Health Status : Should be free from AIDS, Syphilis, Malaria, Filarial, Malignant, Diseases, Cardio vascular diseases, Renal disease, Viral hepatitis, Epilepsy and bleeding disorders.

**Lewis S.L.,(2007)**

## AIM OF BLOOD STORAGE

- ⇒ To make the transfusion safe and beneficial.
- ⇒ Prolonging the self life of blood, its optimum utilization and development of synthetic substances to supplement the human source.

## **KEY ROLE OF BLOOD BANKS**

Recent advances in Medical Knowledge have significantly increased the volume and complexity of the work of the blood banks. Surgical techniques are becoming increasingly sophisticated and complex procedures more numerous cancer surgery, reconstructive operations open heart procedures and organ transplantation etc.

## **CRITERIA FOR SELECTION OF BLOOD DONORS**

Blood donors should be in good health have no history of serious illness and recognize themselves as being at risk of transmitting infection, they should be voluntary.

**Mollison M ., (1997)**

Blood donor selection is based on routine physical examination, medical history and screening tests.

### **Physical Examination**

In general appearance the donor should be in good health. Age should be between 18 – 60 years. Both sexes can donate blood, pregnant women should not donate. Weight should be above 45 kilogram for both sexes. Haemoglobin level should not be less than 12.5 gm/dl or the persons packed cell volume should not be less than 38 percent. Pulse should be between 60 -100 beats per minute and regular. The systolic blood pressure should be between 100 to 160 mm Hg and diastolic pressure should be between 60 to 100 mm of Hg. The oral temperature should not exceed 37.5<sup>0</sup>c

**Walker R.H ., (1993)**

### **Donation Interval**

The minimum duration between each blood donation is 3 months. After plasmapheresis or cytophesis atleast 48hrs must elapse before whole blood donation.

**Hideki R., (1999)**

### **Surgical Procedure**

Donor are acceptable 6 months after the recovery from any major operation and 3 months after the recovery from minor operation, Donor who have received blood or blood components during proceeding 6 months should be deferred.

**Lewis S.L ., (2007)**

### **Screening Tests**

The blood collected from the donor should be subjected for the following screening tests which are mandatory. HBs Ag (Australian Antigen) HIV1 and 2 (AIDS), VDRL (Venereal Disease), MP (Malaria), PCV (Packed cell volume), Hb (Hemoglobin) and HCV (Hepatitis 'c' virus)

**Walker R.H., (1993)**

A study was conducted at Red Cross Blood Bank. Netherlands regarding donor selection and the exclusion of high risk donors. This study recommended that selection of donors is an important means to improve the over all safety of blood supply. Since AIDS epidemic emerged and after the Introduction of sensitive screening tests for HIV it became clear that blood donations given in the infectious 'window' period formed the most important risk for recipients of blood products. Therefore, selection criteria become more and more stringent to exclude these high risk donors.

**Varden B ., (1998)**



## **Collection of Blood from Donors**

Blood donation is safe and simple. Blood should be drawn from a donor by qualified physician or under his or her supervision by assistants trained in the procedure. The skin of the donor at the site of venupuncture should be prepared by a method that should provide assurance that the blood collected will be sterile. The needle is generally pierced in to the upper part of a ventral aspect of forearm mainly in a major vein. Blood should be collected as far as possible by single venipuncture and flow of blood should be continuous. The equipment collection of blood should be sterile, pyrogenfree and disposable. The plastic bag or bottle is being continuously stirred, while collecting blood so that blood should get mixed with anti coagulant in the bag and there is no clot formation.

**Singh R ., (1996)**

The anticoagulant solutions are citrate phosphate dextrose (CPD) solution or citrate phosphate dextrose adenine (CPDA - 1) solution, 14ml of solution is required for 100 ml of blood.

**Nanjia R ., (1999)**

During a donation one unit (350 (or) 450ml) of blood is withdrawn. This blood is replaced by the body and the donation does not affect one's regular activities at all. After each withdrawal of blood, it takes 36 hours for the body to reconstitute the fluid volume and 21 days for the blood cell count to return to a normal level. The donor can donate again after 3 months. Some people are scared of infection. But single use, pre sterilized needles and syringe are used which leaves no chance of infection.

**patel A ., (2000)**

### **Care following Blood Donation**

Following blood donation enjoy light refreshment and rest for at least 10 – 15 minutes. Do not leave the donor site without the permission of a staff member. If you feel dizzy or faint either lie-down or sit-down with your head between your knees until you feel well. Drink more than usual amount of fluids and avoid lifting of heavy weights or exercise for 24 hours. Leave the gauze or band aid for 4-6 hours and do not get it wet. If you have any problem does not hesitate to call the blood bank and talk to the doctor or nurse.

**Jeevan P ., (2000)**

Anyone may need blood at any time. Therefore it is everyone's interest to have safe blood supplies available worldwide.

A healthy person has healthy blood so every one should safeguard their health by caring for that precious life source, their blood, Good nutrition, a clean and healthy lifestyle; proper prevention and early treatment of diseases etc contribute to healthy blood.

**Meshram D ., (2000)**

**Hosain G.M. et. al., (1977)** conducted a study in Bangladesh to assess knowledge and attitude towards voluntary Blood donation among the student of the University of Dhaka. Participants: 200 students were selected and interviewed face to face, on various aspects of blood donation using a structured questionnaire. Results: 82% of the participants showed a positive attitude towards blood donation however only 16% of the respondents in this study herd actually ever donated blood voluntarily. 93% had a negative attitude towards blood donation.

**Wiwantik V., (2001)** conducted a study to assess the knowledge about blood donation among a sample of Thai university students. The study was conducted among students of Chulalongkorn University to assess their knowledge of voluntary, non – remunerated blood donation. Four hundred students participated in this study. A self – administered questionnaire and face to face interview on various aspects of blood donation were used for data collection. Results revealed although most participants (80%) knew about blood donation only 11% (40 subjects) had ever donated blood voluntarily and found no significant correlation between demography data and such knowledge or actual blood donation. Among the non – donor respondents, Fear (305 cases) was the most common reason for not donating blood.

To streamline the system of availability of blood in Delhi, a 24 Hour's pager service has been launched. The facility being provided by two non – Governmental organizations. The annual demand of blood in the country is about six million units. A majority of the donors include relatives and friend of patients. Patients requiring blood may call the volunteers on pager numbers 9628005982 and 9632161992 round the clock.

**The times of India, New Delhi ., (1999)**

According to the American Association of Blood Banks, eight million volunteer donors donate the 14 million points of blood used in the United States. The blood is used to help a variety of people. Donation can help restore a person's blood volume after surgery, accident or child birth improve the immunity of a patient suffering

from cancer leukemia and other diseases and improve the blood's ability to care.

The total estimated annual blood requirement of 6 million units does not seem appropriate in developing countries. This blood requirement has been estimated on the basis of WHO standard of 7 units per bed per year, official statistics show that there is about 5, 76, 683 lakh hospital beds in India. Out of this about 1, 22,109 beds are in the rural areas which are rarely utilized for blood transfusion services. This data itself raises questions about estimated blood requirement (demand) in the country. Now this requirement can best be met voluntarily by a group of people who are in the age group of 18 - 65 years and found medically fit for blood donations.

**Bandyspadhyay G ., (1993)**

## **(ii) OVERVIEW OF ORGAN DONATION**

### **DEFINITION**

#### **Organ donation**

Organ donation is the process of removal and transplantation of viable organs from donor to recipient. Recipients have to be matched with the donor organ in order to reduce the recipient's of the new organ.

**Joseph E.M., (2004)**

### **TYPE OF DONOR**

#### **Living or deceased**

In living donors, the donor remains alive and donates a renewable tissue, cell or fluid (e.g. Blood , skin ) or donates an organ or part of an organ in which the remaining organ can regenerate or take on the work load of the rest of the organ (primarily single kidney donation, partial donation of liver , pancreas). A living donor can

give a kidney, Partial liver, bone marrow to help and save the life of another.

Deceased (formerly cadaver) are donors who have been declared brain dead and whose organs are kept viable by ventilator or other mechanism until they can be excised for transplantation.

## **REASONS FOR DONATION**

### **Living Related**

Living related donors donate to family members or friends in whom they have all emotional investment. The risk of surgery is offset by psychological benefit of not losing some one related to them, or not seeing them suffer the ill effects of waiting on a list.

### **Paired exchange**

A paired exchange is a technique of matching willing living donors to compatible recipients, for example a spouse may be more than willing to donate a kidney to their partner but can not since there is not a biological match. The second donor must match the first recipient to complete the pair exchange.

## **GOOD SAMARITAN**

“Good Samaritan” or altruistic” donation is giving donation to some one not well known to the donor. Some people choose to do this out of a need to donate. Some donate to the next person on the list; others use some method of choosing a recipient based on criteria important to them.

### **Compensated donation**

This general describes donors that donate their organs is exchange for some form of compensation usually monetary.

## **Contraindications**

### **Absolute**

- Age older than 80 years
- HIV and hepatitis B
- Acute metastasis cancer
- General bacterial or viral infection
- Prolonged hypotension or hypothermia

### **Factors influencing organ donation**

Patients who require transplantation treatment also have reservation. Many are unaware of the option of transplantation. Renal failure patients are looking for a living donor and unaware about the availability of cadaver kidneys. The cost of surgery and post transplant drugs that have to be taken life long is very high. Government involvement in reducing cost of drugs and early enrolments to health insurance schemes can help to make this treatment access able to, a greater number. When consumption increases need arises and more people may come forward for organ donation.

**Deshmukh H. et. Al., (2001)**

In United States and Canada more than 76,000 men women and children currently await life saving transplants. Every 13 minutes another name is added of 15 people die each day from the lack of available organs for transplant. In 2000, there were 5984 organ donors resulting in 22,854 organ transplants. In India we do not have authentic and detailed statistics. In late 1994, and early 1995, a few cadaver renal transplants were carried out at various centers in India.

The first heart transplant at all India institute of medical science in late 1994 was a major step forward in the field of cadaver organization. A few liver transplants were attempted at Delhi and Chennai. In the first year about 5 multi organ donation occurred in all India Institute of Medical Science It self and a few at Chennai. Sources say that around 377 kidney, 34 heart, 12 liver, 1 lung and 1 pancreas transplantation were performed in 2000 – 2001. In India deaths due to organ shortage is likely to be more because Asians as a community are three times more likely to suffer from End stage organ diseases than whites.

**Shanker P., (2002)**

Death is always an extremely difficult event for family members. The donation of organs and tissues may be the only positive event that can come from the loss of a loved one. Encouraging organ donation decision, long before this critical moment can ease the family's decision making process and will truly honor the wishes of the deceased, whether or not he or she chosen to be an organ donor.

**American Medical Association., (2002)**

In spite of many measures to promote organ donation the discrepancy between demand and supply of organs continue to grow, with organs being in short supply there is a scope for considerations like money, influence, race, and nationality creeping in to the distribution system. Studies have time and again proved that one of the factors that influences, organ donation to a great extent is how well the patient has been taken care of. If the family is satisfied that the hospital has done all that it could to save this loved one, the out come for organ donation is liable to be successful.

**Raghuram L ., (2002)**

Transplantation has thrown up peculiar and complex religious and moral questions, for example if a heart is removed from a cadaver and does it mean that it is now devoid of a soul. Also will removal of organs in any way affect the process of rebirth? Both Roman Catholics and protestants tend to support organ donation, believing that God's power to resurrect the body will not be thwarted by prior disposal of its parts. Many Islamic countries are now performing cadaver transplant. The only big religious group, which till recently opposed the idea of brain death is the Shinto's in Japan, but now the Japanese parliament gave a go ahead. Swami Lokeshwar Ananda of the Ramakrishna Mission is reported to have said in a seminar in 1988 that Hindu and Vedic scholars accept the concept of brain death. The concept of giving or dharma is ingrained in Hindu thought and therefore there seem to be no major religious objection to the act of organ donation.

**Nagral S ., (2001)**

Activists of organization involved in mobilizing people for organ donation reports that they have received hundred of inquire from citizen desiring to donate their body organ after death. The eye donation movement in India has never faced any significant religious resistance. A survey by the Tata Institute of social sciences in Mumbai revealed that the majority of respondents irrespective of religious and economic status were in favor for organ donation.

**Kannan A ., (1999)**

The donated organs are distributed based on a "waiting list" where recipients are prioritized with organs being in short supply; there is a scope for considerations like money influence, race and nationality creeping into the distributing systems.

**Pandya S.K ., (2001)**



Even if the family says “no to organ donation it is wise to respect their decision and part with them in a pleasant manner. Studies in the west have revealed that such families do say “yes” to donation when another death occurs.

**The new Indian Express ., (2002)**

The mass media is important to raise public awareness regarding the organ donation program. The need for transplantation of organs needs to be high lighted well through national as well local language newspapers and Magazines. Instead of high lighting successful transplants greater importance should be given to the families who donate the organs of their relatives in their moment of greater grief. In the process of highlighting the success and failure the “One single act” of organ donation, which was essential for any transplant to take place has been ignored.

**Gupta A ., (1998)**

Newspaper articles and television interviews further carry the message to the masses, pamphlets, hand bills and posters speak volumes on eye donation voluntary organization like lions, Rotary organize marathon sessions of “Journey for sight cycle rally and essay competition. All these programs are targeted towards the community. The community must shed its inhibition and come out openly to support their movement. The mass island nation srilanka is harvesting eyes more than its local requirement and is sending eyes all over the world “Nothing can prevent any one from donation, its only ignorance” By raising the standard of education and remaking all negative thoughts from mind it is every one’s belief that the day is not far off when we are going to reach self – sufficiency in organ donation.

**Kannan A ., (2000)**

Psychologically there may be many issues; emotionally there may be many changes from denial to acceptance. It may be the hardest thing to accept but we can potentially help twenty people by just saying yes to organ and tissue donation. If every one who could donate their organs and tissues for transplantation.

**Robert H.T .R., (2002)**

## **PART: II**

### **(i) STUDIES RELATED TO KNOWLEDGE AND ATTITUDE ON BLOOD DONATION**

**Beth H. Shaz et. al., (2009)** conducted a study to investigate the differences in motivators and barriers to blood donation between donor and non-donor African American college students. Data was collected using self administrated questionnaire. The study findings revealed three hundred and sixty four primarily female college students (96% African Americans, 93% female) completed the questionnaire. Forty nine percent reported that their blood donation experience (donors) and fifty one percent non donors. The primary motivator for donors and non-donors was convenience (89% donors, 82% non donors). Donors were more likely than non-donors to disagree with statements regarding blood donation as being too painful (82% donor, 44% non donor) resulting in feeling faint, dizzy, nauseated (61 % donor, 29% non donor).

**Namgay shenga et. al., (2009)** conducted a population based cross sectional study to assess the possible reasons for donating and not donating blood among people at Gangtok, East sikim. Using two stage cluster sampling technique, 300 adults were selected from the adult

population of Gangtok, and then by interview technique, the data was collected using the pretested, close-ended structured schedule. The study findings showed a significant association between attitude towards voluntary blood donation and education. There was a significant association between knowledge about blood donation and attitudes towards voluntary blood donation.

**Abdul majeed et. al., (2008)** conducted a study in Saudi to assess the attitude, belief and knowledge about blood donation and transfusion in Saudi population. A well structured Arabic questionnaire was used to collect the particulars. The sample consisted of 335 male (55%) and 274 females (45%). The study findings revealed 84.5% preferred direct donation only from relatives, 51.1% believed the blood transfusion was safe.

**Subhabrata sengupta et. al., (2008)** conducted a study to identify the reasons for people donating and not donating blood voluntarily among adults in sikkim, India. Population based cross-sectional study. 300 adults were selected cluster by two -stage duster sampling technique. The study findings showed Majority (78.7 %) of the respondents in the present study felt that people donate blood to save a friend or relative. On the contrary, minority respondents (46%) were ready to donate blood voluntarily. Only 12.7% of the respondents had ever donated blood while 87.3% had never donated. Among the donors, gender wise men donors were found to be more; 89% were married, half were from the 30 to 39 years age group.

**Androulakiz et. al., (2005)** conducted a study in Greece. To assess knowledge and attitude towards blood donation among a sample of

studies in the technological education institute of Crete. 500 TEI students of which only 314 (62.8%) responded. Self administered questionnaire method. The study findings revealed 52 (16.6%) had ever donated blood, 166 (53.2%) have title knowledge about blood donation. 183 (58.3%) of respondents were ignorant of the conditions and criteria applying to the blood donation in general.

**Sophia S. Wang et. al., (2001)** conducted a study on public attitudes regarding the donation and storage of blood specimens for genetic research. Data from the American Health – Styles survey of health attitudes and behavior were examined in the 1998 survey; four question regarding blood donation and storage for genetic research were passed to the participants. The study findings showed 3,130 participants 2,621 (84%) completed these questions. 42% were in favor of blood donation and long term storage for genetic research. 37% were in favor of either blood donation or storage, and 21% were not willing to donate blood or storage of blood for genetic research under any circumstances.

## **(ii) STUDIES RELATED TO KNOWLEDGE AND ATTITUDE ON ORGAN DONATION**

**Mekahli D. et. al., (2009)** conducted a study to evaluate the level of knowledge and attitude of medical students toward organ transplantation and donation. 571 first-year medical students participated at a medical faculty in Lyon. A 31-item anonymous questionnaire, queries about personal views of organ donation, faculty knowledge and awareness of French law was distributed to the students. The study findings showed To “Willingness to donate a kidney to a relative”, 97.7% of respondents consented, 0.9% objected,

and 1.4% do not answer. Their attitudes toward cadaveric organ donation were different: 81.1% agreed, 13.5% refused and 5.4% did not answer. Regarding their knowledge about which organs could be transplanted, 95% of the respondents were aware.

**Sanavi S. et. al., (2009)** conducted a study to assess medical students at Shahed university in Iran about attitude and willingness toward organ donation. Survey method using a reliable questionnaire that examined their attitudes and willingness. The study findings revealed Medical students had highly positive attitude toward organ donation (Mean score  $4.34 \pm 0.46$ ) and a great willingness. Participants were more willing to donate their own organs than those of deceased relative (85% vs. 49.2) to help others more than to develop science (91.2 vs. 8.8%). The greatest willingness among students was kidney donation (84%).

**Anita Gupta et. al., (2008)** conducted a study in New Delhi to assess the awareness and perception of 188 first and second year nursing students towards eye donation in Bangalore. Cross section study designs. Semi structured questionnaire was used to collect the data. The study findings showed 96.68% of students had knowledge that eyes can be donated after death, but only 38.2% knew that the ideal time of donation was within 6 hours of death. 85.1% were willing, to donate their eyes. 67.9% further results revealed lack of awareness 42.8%, objection by the family members 28.5%, and co suitability to donate because of health problem was 10.7. This study revealed that nursing students were well aware of eye donations and most of them were inclined to sign up for eye donation.

**Taimur Saleem et. al., (2008)** conducted a study in Pakistan to assess the knowledge, attitudes and practices regarding organ donation in a selected adult population in Pakistan. Convenience sampling was used to generate a sample of 440, 408 interviews were successfully completed and used for analysis. The study findings showed 35.5% people expressed a high motivation to donate.

**Christina ky chung et. al., (2008)** conducted a study in Hong Kong to study attitudes, knowledge and actions of local medical students with regard to organ donation and self perceived confidence in approaching potential organ donors. Cross sectional questionnaire survey, Participants: medical students' years 1-5. The study findings showed the response rate was 94%. A majority (85%) had a 'positive' attitude but only a small proportion (23%) had signed the organ donation card. Inconvenience and care of knowledge about organ donor registration and concerns about premature termination of medical treatment accounted for such discrepancies.

**G Ingle et. al., (2007)** conducted a study to assess the perception and willingness of medical students on eye donation in Delhi. 180 first year medical students towards Eye donation in Delhi. They were administered a protested semi-structured questionnaire on Eye donation. The study findings showed the majority (99.4%) of students know that eyes can be donated after death but only 4.1% knew that the ideal time of donation was within six hours of death. Most participants (87.2%) were willing to donate eyes. Nobility in the Act of Eye donation was the main motivational force for eye donation according to 85.5% of students. Perceived reasons for not pledging Eyes by the people were: lack of awareness (32.7%) objection by family members (27.7%),

unsuitability to donate because of health problem (17.7%) and the unacceptable idea to separate the Eye from the body (15.5%).

**Zhang L et. al., (2007)** conducted a study to classify the knowledge and attitudes of Chinese university students regarding living organ donation. A questionnaire was delivered to college students chosen by random assignment. The study findings revealed 434 participates, 49.8% indicated they would be willing to be living organ donors, 58.4% believed living organ donation could ease the organ shortage, 48.2% thought that the recovery rate of recipients of living organ donors transplants was equal to or even better then deceased donation, 62.4% designated relatives as their most probable recipients, 48.0% argued that partial compensation was an effective method to donate through transplantation centers.

**Chen J.X et. al., (2006)** conducted a study to asses current knowledge and attitudes about organ donation and transplantation among Chinese university students. Cross sectional survey using questionnaire among 922 Chinese undergraduates from mainland, China and overseas regions of the world. The study findings showed significantly better awareness of heart, liver, lung, skin and tendon donation among commonly transplanted organs / tissues. As to the willingness for cadaveric organ donation, 61.3% of respondents consented, 8.5% objected, and 30.3% answered “not sure”.

**Peter J. et. al., (2006)** conducted a study to assess the number of potential organ donors as well as their knowledge and attitudes regarding organ donation. Conducted a telephone survey of 1509 adults using a stratified random sample of the main three language groups

(German, French and Italian) in Switzerland. The study findings showed the three language groups display substantial differences with respect to patterns of knowledge, motives and concerns underlying their willingness to donate organs – differences that persist even in the context of strong national identity, relatively homogeneous cultural background, and the public good nature of organ donation.

**Myfanwy morgen et. al., (2006)** conducted a study in UK to study attitudes to kidney donation and registering as a donor among ethnic groups. A questionnaire survey was undertaken based on a convenience sample of general practice attenders to examine knowledge and attitudes to organ donation among ethnic groups. The study findings showed about 1606(84.4%) of people agreed to participate, and 1536(95.7%) questionnaires were fully completed. High proportions of all ethnic groups were aware of the possibility of leaving kidneys for transplant, and ethnic minorities were significantly more aware of the urgent need for donors. However, negative attitudes to organ donation involved multiple issues rather than a single barrier, including worries that their organs may be used for other purposes such as medical research, a lack of confidence that medical teams would try as hard to save the life of a donor, concerns about leaving the body 'intact' after death and questioning the value being a donor.

**Sonmez Y. et. al., (2006)** conducted a study to detect the attitude and behavior related to organ donation among last term students. Cross sectional research consisted of 1690 last term students, applied a questionnaire about sociodemographic features, behaviors and attitudes about organ donation. The study findings showed the main reasons for not agreeing to donation were fear of commercial use (45.7%) and the



belief of inappropriateness related to religion (25.7%). In contrast, 62.3% stated that they would donate their organ when needed for their relatives. Also, 50.6% indicated that if one of their relatives, they would donate their relatives organ; there was no significant difference based on gender.

**Catalina Conesa et. al., (2006)** conducted a study to determine the opinion and fears of the teenage population regarding organ donation. Random stratified sample according to gender and geographical location of 15 to 19 years old adolescents. The attitude toward organ donation was assessed using the questionnaire on psychological aspects of donation. The study findings showed 73% of teenagers have a favorable attitude towards organ donation. 27% are undecided or have negative attitudes; the main reason given is fear of apparent death (48%).

**Giorgina Barbara et. al., (2005)** conducted a study to test the efficacy of an educational programme for secondary school students on opinions on renal transplantation and organ donation. Cluster Randomized controlled trial: eight interventions and eight control schools were randomly selected from the 33 public schools that agreed to participate. Students in the last 2 years of secondary school (17-18 years), seven schools per group completed the study. The study findings showed 1776 first, 1467 second questionnaires were retrieved. Living kidney donation: at base line 78.8% of students would donate a kidney to a relative/friend in need. The answers were unaffected by type of school but depended on sex (females more prone to donate  $p < 0.001$ ). The answers did not change after the lessons. Cadaveric kidney donation: base line opinions were mixed (intervention schools:

31.5% yes, 33.7% no, 34.8% uncertain), depending on type of school (classical-scientific high schools more positive than technical institutes,  $P<0.001$ , sex males more prone to donate,  $P<0.001$ . Answers on living and cadaveric donation were correlated ( $P<0.001$ ). The educational intervention increased favorable 31.5 to 42.9% and uncertain 34.8 to 41.1% opinions and decreased negative ones 33.7 to 16%  $P<0.001$ .

**Essman C. et. al., (2005)** conducted a study to assess medical students knowledge, attitudes and behavior regarding organ donation in ohio A previously validated, 41 question instrument assessing organ donation, allocation, and transplantation knowledge was directly administered to 537 first-and second-year medical students attending one of three ohio schools. Students were also asked about their support for organ donation and the donation training they had received. The study findings showed two hundred sixty four first -year and 236 second year students responded (response rate = 93%). Few students to date received donation and transplantation training before (11%) or during (22%) medical school. Second year students were more likely than first year students to have received training during medical school (40% vs 6%,  $p<.001$ ) and to have read articles regarding donation (24% vs 15%,  $p=.017$ ). However both first-and second-year medical students answered the majority of the knowledge questions correctly (43% vs 48%.  $p=.002$ ).

**Daryl Thornton J. et. al., (2005)** conducted a study to explore ethnic and gender difference in willingness among high school students to donate organs A cross sectional survey was administered to 883 students attending health science class at nine inner city high schools in Seattle, Washington. The study findings revealed although only 40% of

the cohort had driver's license, 24% of those with driver's licenses had signed a donor card. Girls were more willing to donate than boys ( $p<.001$ ) and whites more willing to donate than minorities ( $p<.001$ ).

**Reubsaet A. et. al., (2004)** conducted for process evaluation of a school-based education program among high school students aged 15-18 years about organ donation and registration, and the intention for continuance in Netherlands. The program consisted of three components: a video with group discussion, an interactive computer tailored program and a registration training session. A cross-sectional survey was conducted among 50 teachers who had recently worked with the program. The study findings showed all teachers reported to have implemented atleast two of the three intervention components, while a majority of teachers reported to have implemented all components. Teacher's attitudes toward the program were generally positive. They reported that the opinions of students and colleagues in their decision to provide the education program. Further more teachers were very confident about their ability to apply the different parts of the education program. The educational quality of the program was evaluated as moderately positive and almost all teachers had the intention to use the program again in the future.

**Sannapaneni krishnaiah et. al., (2004)** conducted a study to determine awareness of Eye donation and willingness to pledge eyes for donation in the rural population of Andhra Pradesh, Southern India. A total of 7,775 subjects of all ages, representative of the rural population of Andhra Pradesh, participated in the Andhra Pradesh Eye disease study. Subjects older than 15 years were interviewed regarding awareness of eye donation and willingness to pledge eyes for donation. The study findings revealed media comprised the major source of

information about eye donation, of these aware of eye donation, 32.9% were willing to pledge eyes, and 50.6% needed more information to decide whether or not to pledge their eyes.

**Shannon L. et. al., (2004)** conducted a study to assess public knowledge and attitudes regarding organ and tissue donation: an analysis of the northwest ohio community. One thousand participants were randomly selected from North West ohio to receive a survey distributed by mail. A total of 383 valid questionnaires were obtained. The study findings showed Respondents were knowledgeable about donation, with a mean correct knowledge score of 86%. However, four questions were answered incorrectly by nearly 25% or more of participates, indicating deficits in the community's knowledge. Over 96% of respondents had favorable attitudes toward donation. Both knowledge and attitudes were positively associated with willingness as well as commitment to donate.

**Timothy J., (2004)** conducted a study to assess nurses' knowledge and educational needs towards organ donation within one adult general intensive care unit. Survey consists of 31 registered nurses who completed a confidential questionnaire that aimed to assess their existing knowledge deficits in organ and tissue donation. The study findings showed a majority of sample stated their knowledge of donation issues would improve if an educational programme were developed an organ donation.

**Praveen Nirmalan et. al., (2003)** conducted a study to determine "awareness of Eye donation" and corneal transplantation in an adult population of southern India. 507 participants chosen by systematic Random sampling were interviewed using a structured questionnaire.

Participants were selected among patients attending to community outreach programmes at different sites, and from patients presenting directly to the hospital. The study findings revealed 257 participants (50.69%) were aware of eye donations. The major source of awareness was publicity campaigns (n=105). Only 22(4.34%) participants were aware that Eye donation had to be done within hours of death. 403(79.50%) participants were not aware of corneal transplantation. Illiteracy and Rural residence were more likely predictors of ignorance.

**Jung-Ran (Teresa) Kim et. al., (2003)** conducted a study to identify undergraduate nursing students' knowledge and attitudes toward organ donation in Korea. 292 undergraduate students in a Korean nursing college were surveyed. (Response rate 92%). The study findings showed a lack of knowledge regarding diagnostic tests and comorbid factors of brain death were noted among students. Their attitudes towards organ donation were somewhat mixed and ambiguous, but overall they were positive and willing to be a potential donor in the future.

**Matten M.R. et. al., (1998)** conducted a study to assess nurses' knowledge, attitudes and beliefs regarding organ and tissue donation and transplantation. Nurses' knowledge, attitudes and beliefs regarding organ and tissue donation and transplantation were assessed using a 70-item questionnaire. Respondents included 1,683 nurses employed in rural and urban hospitals in the mid west. The study findings showed Respondents were knowledgeable about organ and tissue donation (mean score of 7.5 on an organ donation 0 to 10 knowledge scale with 10 as highest) and reported attitudes and beliefs were moderately positive.

## **CHAPTER - III**

### **METHODOLOGY**

This chapter deals with methodology adopted for the study. It Includes research approach, research design, population, criteria for sample selection, sampling technique and plan for data analysis.

#### **RESEARCH APPROACH**

Descriptive approach was used to conduct this study.

#### **RESEARCH DESIGN**

Non experimental descriptive survey design was adopted to assess the knowledge and attitude of adolescents regarding blood and organ donation.

#### **SETTING OF THE STUDY**

The study was conducted in urban area, Nanchiyampalayam which comes under Dharapuram block. The total population is 6770. The area consists of 7 streets. In this the adolescents are 391, including male and female. In that, the girls were 191 and the boys were 200. The main occupation of the people in Nanchiyampalayam are construction work, petty shops, Agriculture work and working in mills.

#### **POPULATION**

The population selected for this study was the adolescents residing in Nanchiyampalayam, Dharapuram.

#### **SAMPLE**

The adolescents in between the age group of 14 - 21 years study samples.

## **CRITERIA FOR SAMPLE SELECTION**

### **Inclusion Criteria**

- Both boys and girls.
- Adolescents who are literate.
- Those who are available during data collection.

### **Exclusion criteria**

- Adolescents who are sick.
- Adolescents who are not willing to participate in the study.

## **SAMPLE SIZE**

The sample size comprised of 100 Adolescents who met inclusion criteria were selected as samples.

## **SAMPLING TECHNIQUE**

Non probability purposive sampling was used to select the samples.

## **THE DESCRIPTION OF THE TOOL**

The instrument consists of 3 parts.

### **Part I:**

It consists of demographic variables such as age, sex, religion, type of family, education, health information resources, registered blood / organ donor.

**Part II:**

It consists of structured interview schedule which consists of 35 multiple choice questions regarding blood and organ donation. It has four options among which, one is the correct response.

**Scores will be interrupted as follows:**

Level of knowledge	Scores	Percentage.
Adequate	25 - 35	67 - 100 %
Moderately adequate	13 - 24	34 - 66 %
Inadequate	1 - 12	0-33 %

**PART III:**

Five point likert scale consists of 15 statements to assess the attitude of the adolescents regarding blood and organ donation. Total score is 75.

For the positive attitude statements the score was measured as follows.

Strongly agree	:	5
Agree	:	4
Uncertain	:	3
Disagree	:	2
Strongly disagree	:	1

For the negative attitude statements the score was measured as follows.

Strongly agree	:	1
Agree	:	2
Uncertain	:	3
Disagree	:	4
Strongly disagree	:	5



**Scores will be interpreted as follows:**

Level of attitude	Scores	Percentage
Favorable	51- 75	67 - 100%
Moderately favorable	26 - 50	34 - 66 %
Unfavorable	0 - 25	0-33 %

## **VALIDITY AND RELIABILITY OF THE TOOL**

### **Validity**

The validity of the tool was established in consultation with four nursing experts in the field of community health nursing and one community medicine. The tool was modified according to the suggestions and recommendations of the experts.

### **Reliability**

The reliability of the structured knowledge questionnaire was assessed by testing of the stability and internal consistency. The stability was assessed by test retest method using Karl Pearson co-efficient formula. The value was found to be reliable ( $r= 0.8$ ) Internal consistency was assessed by using split half technique where spearman's brown prophecy was used. The value was found to be reliable ( $r=0.9$ ). Hence the structured knowledge questionnaire was found to be reliable.

The reliability of the five point likert scale on attitude of blood and organ donation was assessed by testing of the stability and internal consistency. The stability was assessed by test retest method using Karl Pearson co-efficient formula. The value was found to be reliable ( $r= 0.9$ ). Internal consistency was assessed by Cronbach's Alpha method was used. The value was found to be reliable( $r = 0.86$ ). Hence five point likert scale was found to be reliable.

### **Pilot study**

The pilot study was conducted in Nehru nagar for a period of 1 week. 10 adolescents who met the inclusion criteria were selected as study samples by using non probability purposive sampling technique. Demographic variables and the knowledge regarding blood and organ donation was assessed by using a structured interview schedule and the attitude was assessed by using five point likert scale. The data was tabulated and analyzed and the findings showed that the mean knowledge score was 15.6 ( $SD \pm 6.1$ ) and the mean attitude score was 47.2 ( $SD \pm 11.6$ ) and it was found that it is feasible and practicable to conduct the main study.

### **DAT A COLLECTION PROCEDURE**

The study was conducted at Nanchiyampalayam, Dharapuram. The written permission was obtained from municipal health officer, Dharapuram. The 100 samples who met the inclusion criteria were selected by purposive sampling method. Oral consent was obtained from the study participants after explaining the purpose of the study. The demographic data and the knowledge regarding blood and organ donation was assessed by using structured interview schedule. The attitude regarding blood and organ donation was assessed using five point likert scales. 10 to 15 adolescents were selected from each street. 45 minutes was spent for each study samples. 3 to 4 adolescents were interviewed per day, between 8am to 7pm. The same procedure was carried out in all the other streets to obtain data from all the samples. After collecting the data from all the samples, the SIM was developed, validated and distributed to all the samples. Finally the data was tabulated and analyzed statistically.

## DATA ANALYSIS

The data related to assessment of knowledge and attitude regarding blood and organ donation of adolescents was analyzed in terms of descriptive and inferential statistics.

## STATISTICAL METHODS

The statistical methods used for analysis were both descriptive and inferential statistics.

Sl. No	DATA ANALYSIS	METHODS	REMARKS
1.	DESCRIPTIVE STATISTICS	Frequency, percentage	To assess the demographic variables of adolescents.
		Mean, standard Deviation	To assess the knowledge and attitude of adolescents regarding blood and organ donation.
2.	Inferential statistics	Karl Pearson correlation formula,	To determine the relationship between knowledge and attitude regarding blood & organ donation.
		Chi Square test	To Find out the association between knowledge and attitude score regarding blood and organ donation with their demographic variables.

## PROTECTION OF HUMAN SUBJECTS

The proposed study was conducted after the approval of dissertation committee. Oral consent of each subject was obtained before starting the data collection. Confidentiality was maintained through out the study.

## **CHAPTER – IV**

### **DATA ANALYSIS AND INTERPRETATION**

This chapter deals with the description of sample characteristics and analysis & interpretation of data collected from adolescents in Nanchiyampalayam in Dharapuram.

The present study was designed to assess the knowledge and attitude regarding Blood and Organ donation among adolescents in Nanchiyampalayam at Dharapuram. The collected data was organized and interpreted by using Descriptive and inferential statistics and was coded and analyzed as per objectives of the study under following headings.

#### **ORGANIZATION OF DATA**

The data has been described and organized as follows.

**SECTION A:** Description of demographic Variables.

**SECTION B:** a) Frequency and percentage of knowledge scores of adolescents regarding blood and organ donation.  
b) Area wise knowledge scores regarding blood and organ donation among adolescents.

**SECTION C:** Frequency and percentage of attitude scores of adolescents regarding blood and organ donation.

**SECTION D:** a) Mean and standard deviation regarding blood and organ donation.

b) Correlation of knowledge scores with attitude scores regarding blood and organ donation among adolescents.

**SECTION E:** Association of knowledge scores with selected demographic Variables of adolescents.

**SECTION F:** Association of attitude scores with selected demographic Variables of adolescents.

## SECTION - A : DESCRIPTION OF DEMOGRAPHIC VARIABLES

**Table: 1** : Frequency and percentage of demographic variables of adolescents.

n = 100

SL. No	Demographic Variables	Frequency	percentage
<b>1</b>	<b>Age</b>		
1.1	14 - 17 years	28	28
1.2	18 - 21 years	72	72
<b>2</b>	<b>Sex</b>		
2.1	Male	71	71
2.2	Female	29	29
<b>3</b>	<b>Religion</b>		
3.1	Hindu	87	87
3.2	Christian	11	11
3.3	Muslim	2	2
3.4	Others	-	-
<b>4</b>	<b>Type of Family</b>		
4.1	Nuclear family	71	71
4.2	Joint family	29	29
<b>5</b>	<b>Education</b>		
5.1	Primary education	48	48
5.2	Secondary education	27	27
5.3	Higher secondary education	10	10
5.4	Graduates	15	15
<b>6</b>	<b>Sources of Information</b>		
6.1	Television Programme	61	61
6.2	Radio Programme	8	8
6.3	News Paper	31	31
<b>7</b>	<b>Registration</b>		
7.1	Yes	7	7
7.2	No	93	93

Table 1 showed that description of demographic variables. The majority of the adolescents 72 (72%) were belonged to the age group of 18 – 21 years and 14 – 17 years adolescents were 28 (28% )

There were 71 (71) % Males and 29 (29 %) were females.

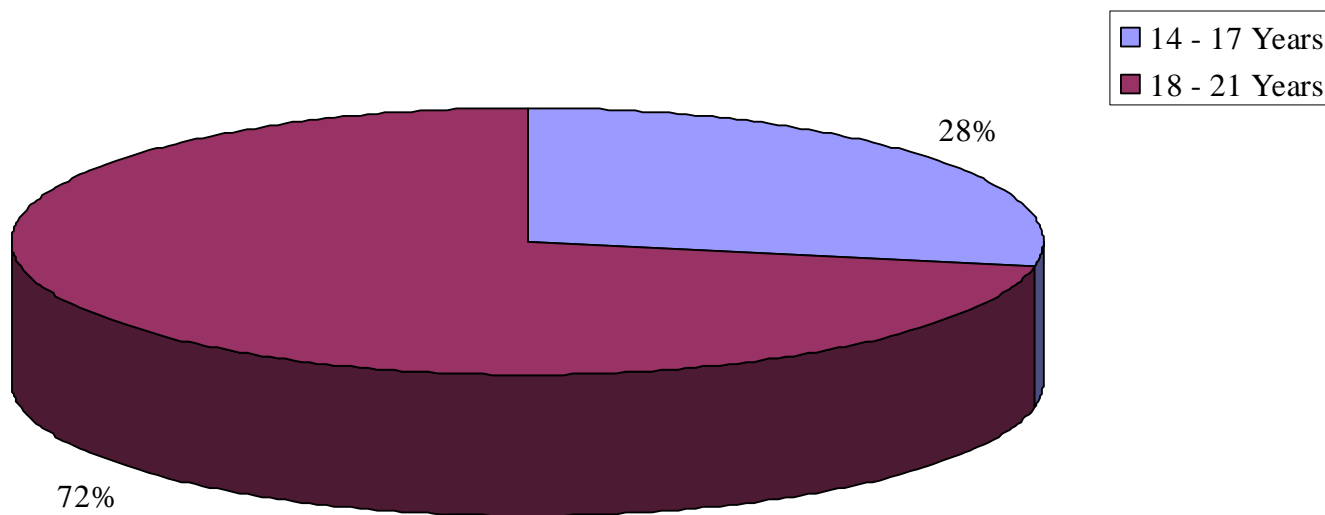
The data showed that the highest number 87 (87%) of adolescents were Hindus, few 11 (11%) of adolescents were Christian very few 2(2%) of adolescents were Muslims.

Majority of the adolescents 71(71%) belonged to nuclear family. Few 29 (29%) of the adolescents belong to joint family.

There were 48 (48%) of the adolescents studied primary education, 27 (27%) of the adolescents studied secondary education, 10 (10%) of the adolescents studied higher education, majority of the adolescents 15 (15%) were graduates.

The majority of the adolescents 61 (61%) had health information from television programs, 8 (8%) of the adolescents had health information from radio programs, 31 (31%) of adolescents had health information from newspaper and magazines.

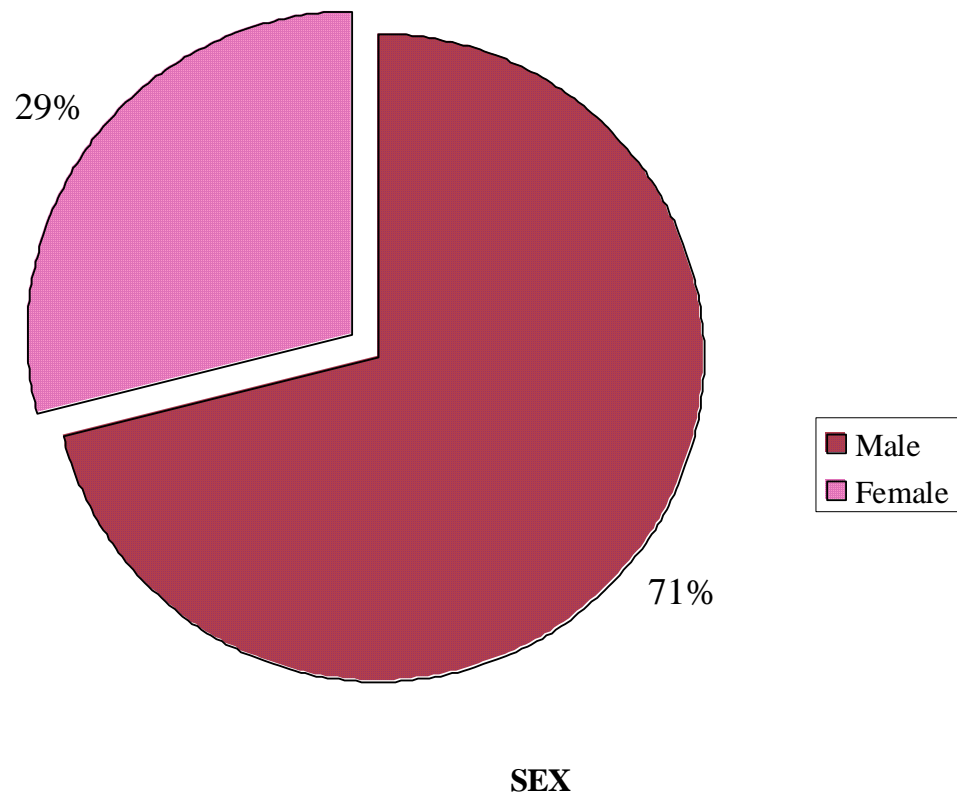
The data showed that the most 93 (93%) of the adolescents were not registered, very few 7 (7%) of the adolescents were registered for blood & organ donation.



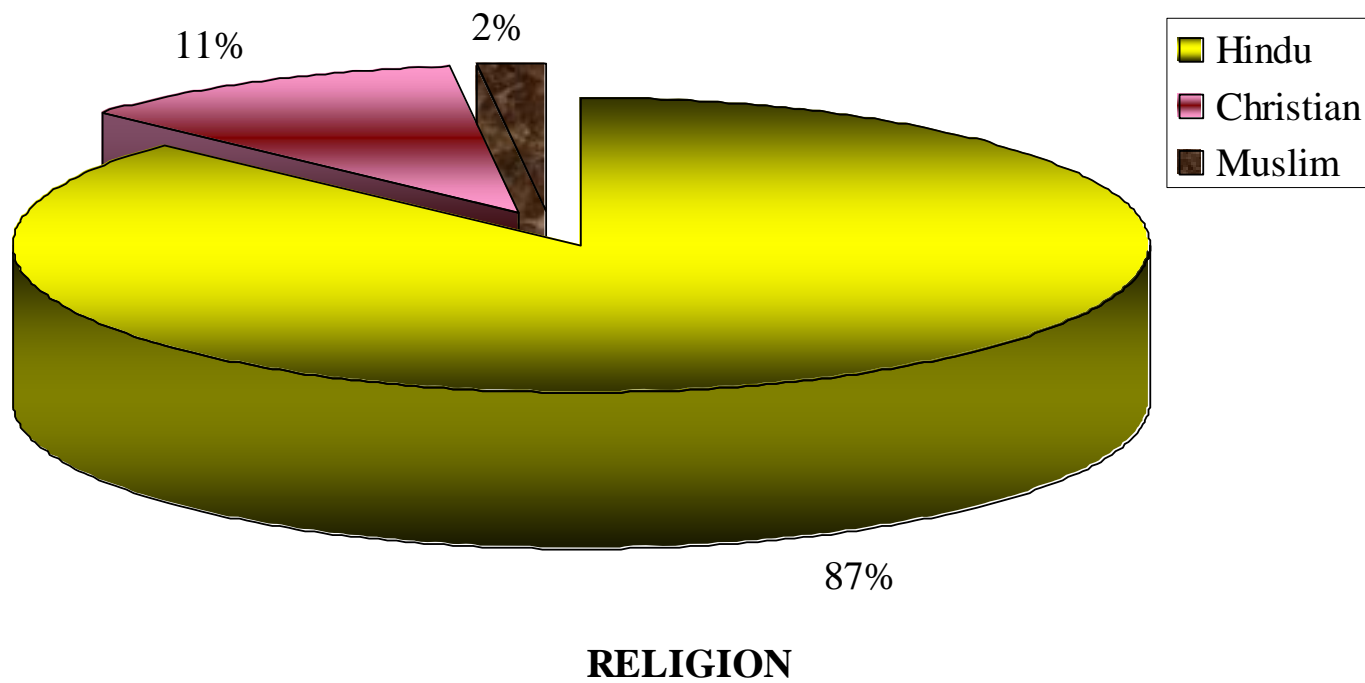
**AGE IN YEARS**

**Fig: 2 Percentage distributions of adolescents according to their age.**

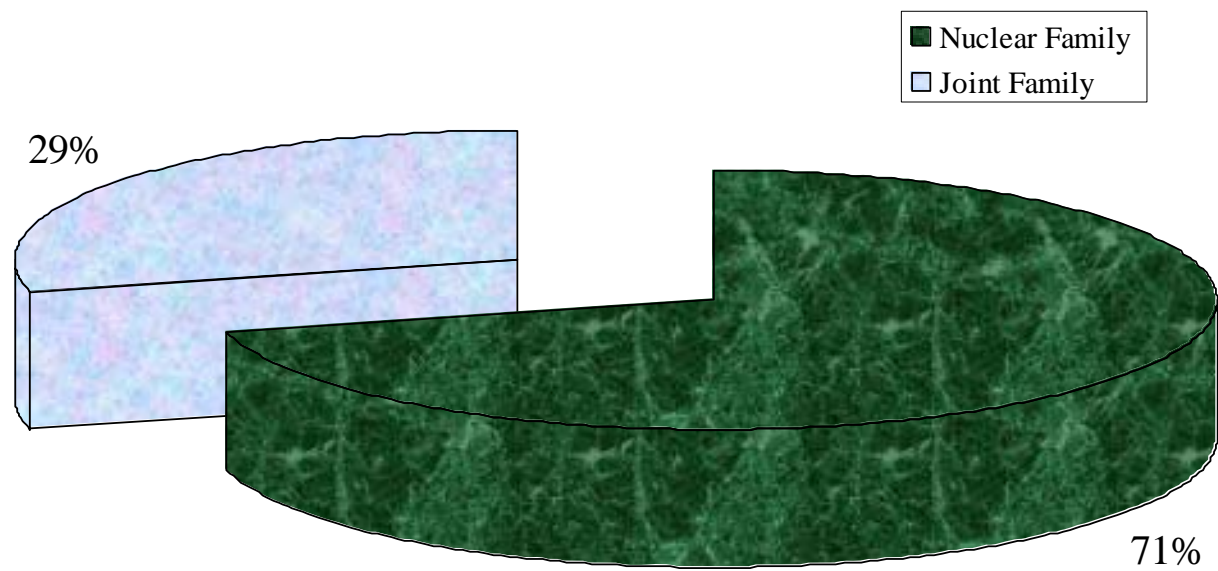




**Fig: 3 Percentage distributions of adolescents according to their sex.**

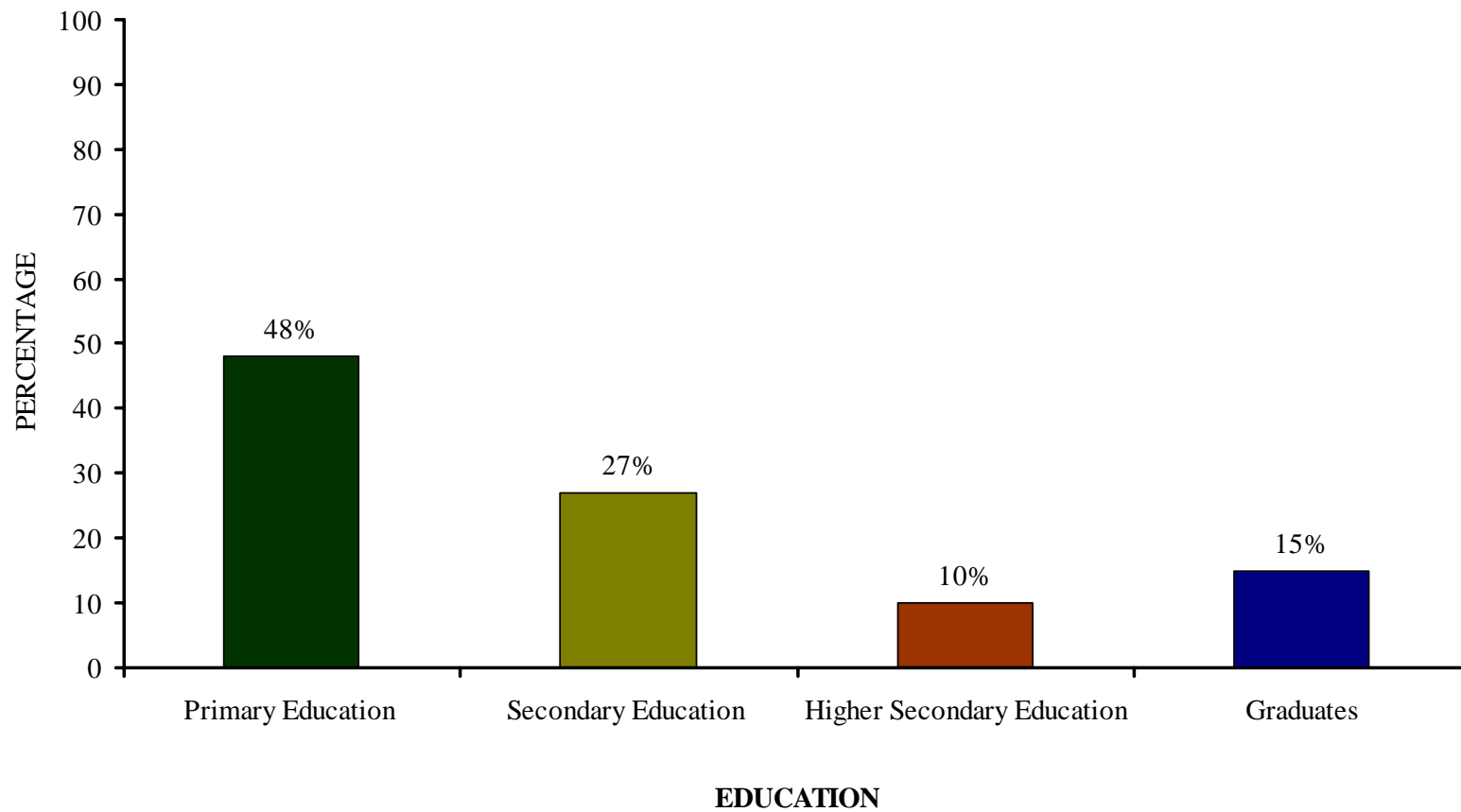


**Fig: 4 Percentage distributions of adolescents according to their religion.**



**TYPE OF FAMILY**

**Fig: 5 Percentage distributions of adolescents according to their type of family**



**Fig: 6 Percentage distributions of adolescents according to their education**

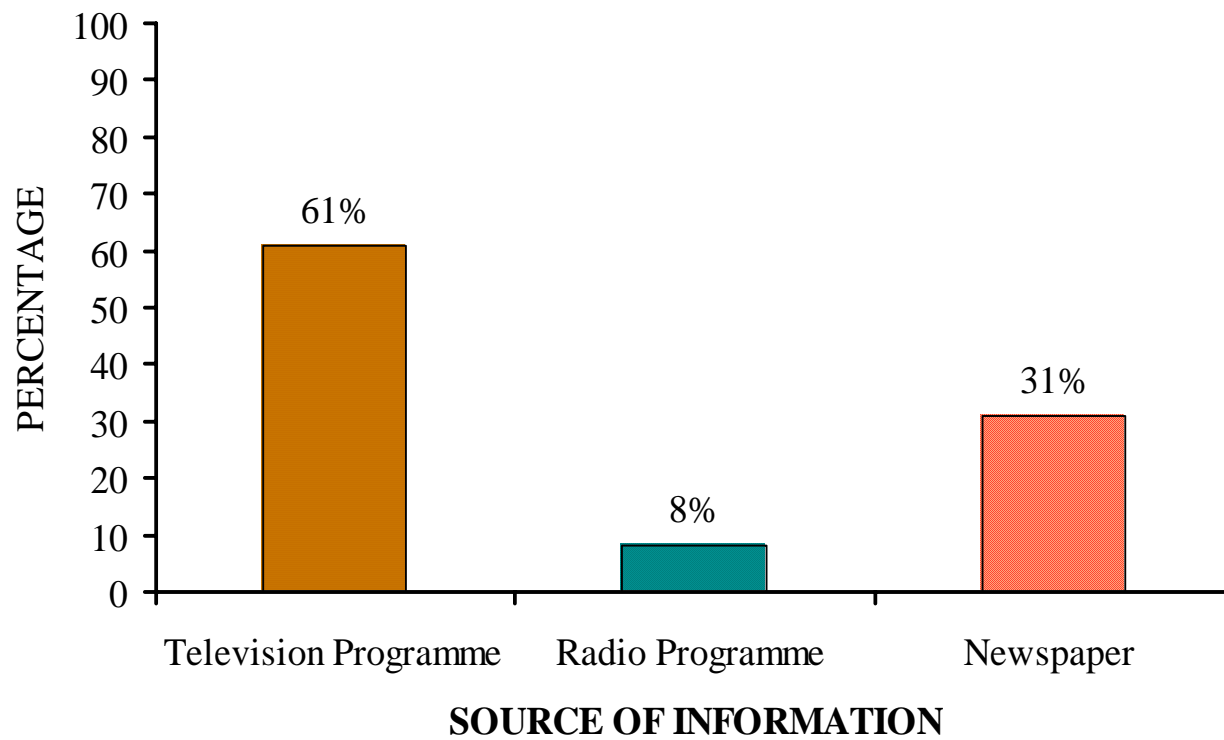
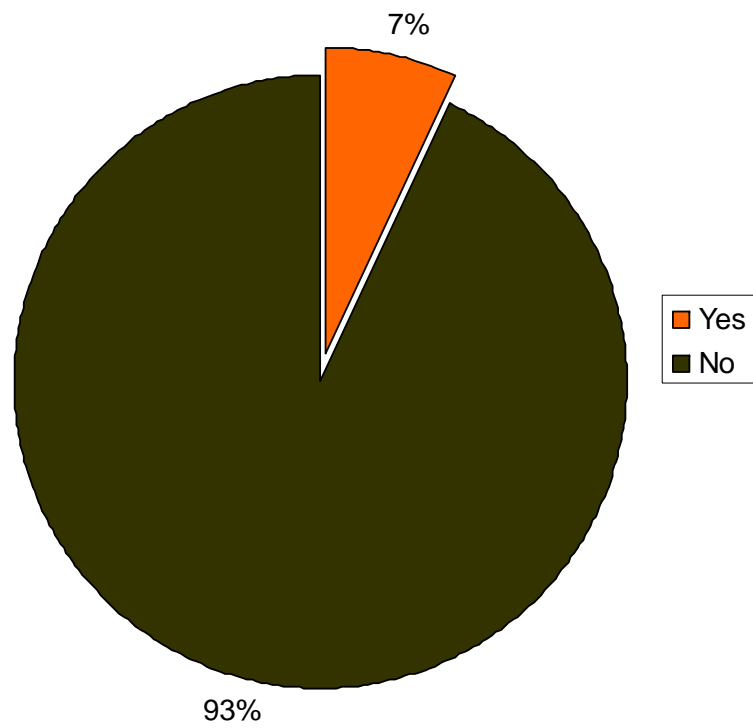


Fig: 7 Percentage distributions of adolescents according to their source of information



### REGISTRATION

Fig: 8 Percentage distributions of adolescents according to their registration

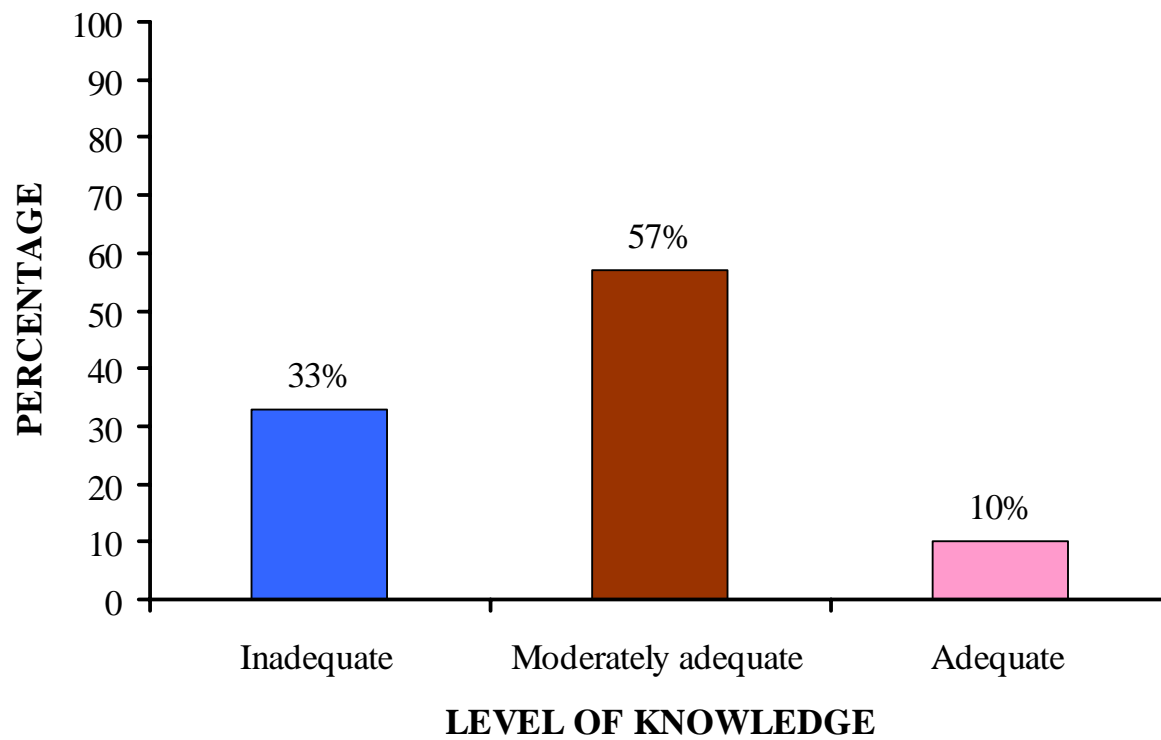
**SECTION - B : FREQUENCY AND PERCENTAGE OF KNOWLEDGE SCORES OF ADOLESCENTS REGARDING BLOOD AND ORGAN DONATION.**

**a) Table 2:** Frequency and percentage of knowledge scores of adolescents regarding blood and organ donation

n=100

<b>S.No</b>	<b>Level of knowledge</b>	<b>Frequency (F)</b>	<b>Percentage (%)</b>
1	Adequate Knowledge	10	10
2	Moderately Adequate knowledge	57	57
3	Inadequate Knowledge	33	33
	Total	100	100

Table 2 showed that 33 (33%) had inadequate knowledge 57 (57%) had moderately adequate knowledge and 10(10%) of adolescents had adequate knowledge regarding blood and organ donation.



**Fig: 9 Percentage distributions of knowledge scores regarding blood and organ donation among adolescents.**



**b)Table : 3** Area wise knowledge scores of adolescents regarding Blood and organ donation.

**AREAWISE ANALYSIS**

S.L. No	AREAS IN KNOWLEDGE QUESTIONS	SCORE	MEAN	Mean Percentage (%)	STANDARD DEVIATION
1.	Physiology of blood	4	2.48	62	1.2
2.	Blood Donation criteria	8	3.83	47.87	1.47
3.	Care following blood donation	2	0.83	41.5	0.67
4.	Safe blood donation	3	1.43	47.66	0.53
5.	Meaning of organ donation	2	1.37	68.5	0.70
6.	Type of organ donation	2	0.85	42.5	0.71
7.	Criteria for organ donation	9	4.97	55.22	2.21
8.	Timing for organ donation	4	1.92	48	1.6
9.	Contra-indications for organ donation	1	0.11	11	0.3
	<b>Total</b>	<b>35</b>	<b>17.79</b>	<b>50.82</b>	

Table 3 Area wise analysis of mean, SD and mean percentage of knowledge score of blood and organ donation revealed the highest mean score in the area of meaning of organ donation  $1.37 \pm 0.70(68.5\%)$  where as in the area of contra-indication for organ donation showed the lowest mean score  $0.11 \pm 0.3(11\%)$  and the other areas revealed in the physiology of blood  $2.48 \pm 1.2(62\%)$  , blood donation criteria  $3.83 \pm 1.4(47.87\%)$  , care following blood donation  $0.83 \pm 0.67(41.5\%)$  , safe blood

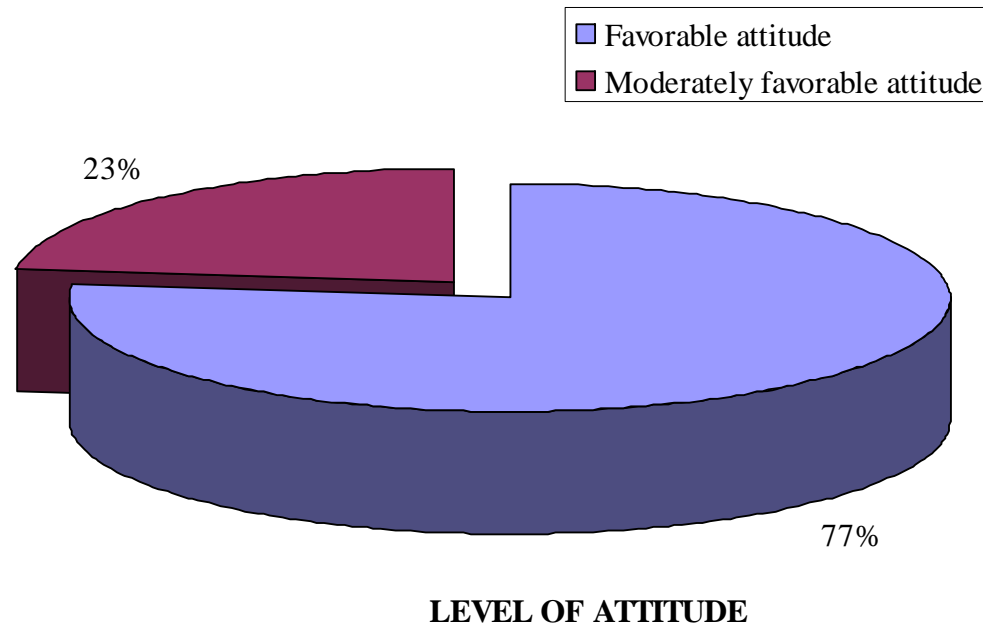
$1.43 \pm 0.53(47.66\%)$  , type of organ donation  $0.85 \pm 0.71(42.5\%)$  , criteria for organ donation  $4.97 \pm 2.21(55.22\%)$  and timing for organ donation  $1.92 \pm 1.6 (48\%)$  . The overall mean score was 17.79 (50.82%) .

**SECTION-C                      FREQUENCY AND PERCENTAGE OF ATTITUDE SCORES REGARDING BLOOD AND ORGAN DONATION AMONG ADOLESCENTS.**

**Table: 4**                      Frequency and percentage of attitude scores regarding blood and organ donation among adolescents.

<b>S. No</b>	<b>Level of Attitude</b>	<b>Frequency (F)</b>	<b>Percentage %</b>
1	Favorable attitude	77	77
2	Moderately favorable attitude	23	23
3	Unfavorable attitude	-	-
	Total	100	100

Table: 4 showed that 77 (77%) had favorable attitude, 23(23%) had moderately favorable attitude and 0(0%) had unfavorable regarding blood and organ donation.



**Fig: 10 Percentage distributions of attitude scores regarding blood and organ donation among adolescents**

**SECTION - D      CORRELATION OF KNOLEDGE SCORES WITH  
ATTITUDE SCORES REGARDING BLOOD AND  
ORGAN DONATION AMONG ADOLESENTS.**

**a) Table :5**      Mean and standard deviation of adolescents  
regarding `blood and organ donation among  
adolescents.

n=100

S.No	Variable	Mean	Standard Deviation
1	Knowledge	17.81	5. 69
2	Attitude	54.56	5. 77

Table 5 Showed that mean score of knowledge and attitude  
regarding, blood and organ donation were 17.81(SD± 5.69) and 54.56  
(SD±5.77) respectively.

**b)Table : 6** Correlation of knowledge and attitude scores among adolescents regarding blood organ donation.

n = 100

S.No	Variable	Mean scores	Co Efficient of co r relation	Table Value
1	Knowledge	17.81	0. 268	0.195
2	Attitude	54.56		

(df: 98) (P< 0.05=0.195)

Table 6 showed that there was positive correlation ( $r = 0.268$ ) of knowledge and attitude regarding blood and organ donation among adolescents at 0.05 level

**SECTION -E      ASSOCIATION OF KNOWLEDGE SCORES  
REGARDING BLOOD AND ORGAN  
DONATION AMONG ADOLESCENTS WITH  
THEIR SELECTED DEMOGRAPHIC VARIABLES.**

**Table: 7**      Association of knowledge scores regarding blood and organ donation among adolescents with their selected demographic variables

n = 100										
S. No	Demographic Variables	Level of knowledge						X <sup>2</sup>	Ta ble Val ue	Infer ence
		Adequat e		Moderatel y adequate		Inadequ ate				
		No	%	No	%	No	%			
1	Age									
1.1	14 -17 yrs	2	2	9	9	17	17	13.58	5.	(S)
1.2	18 - 21yrs	8	8	48	48	16	16	(df=4)	99	
2	Sex									
2.1	Male	6	6	43	43	22	22	1.4 3	5.9	(N.S)
2.2	Female	4	4	14	14	11	11	(df=4)	9	
3	Religion									
3.1	Hindu	8	8	49	49	30	30	2.067 (df=6)	9.4 9	(N.S)
3.2	Christian	2	2	7	7	2	2			
3.3	Muslim	-	-	1	1	1	1			
3.4	Others	-	-	-	-	-	-			
4	Family Type							0.056	5.9	(N.S)

4.1	Nuclear family	7	7	41	41	23	23	(df=4)	9	
4.2	Joint family	3	3	16	16	10	10			



		Adequate		Moderately adequate		Inadequate				
		No	%	No	%	No	%			
5	<b>Education</b>									
5.1	Primary Education	3	3	24	24	21	21	6.63 (df=6)	15.51	(N.S)
5.2	Secondary Education	5	5	13	13	9	9			
5.3	Higher Secondary Education	1	1	8	8	1	1			
5.4	Graduate	1	1	12	12	2	2			
6	<b>Health Resources</b>									
6.1	Television Programme	8	8	37	37	16	16	5.74 (df=4)	9.49	(N.S)
6.2	Radio Programme	-	-	3	3	5	5			
6.3	News paper	2	2	17	17	12	12			
7	<b>Registration</b>							3.52		
7.1	Yes	7	7	-	-	-	-	(df=2)	5.99	(N.S)
7.2	No	3	3	58	58	32	32			

(p< 0.05) N.S = not significant, S = Significant

Chi Square values were calculated to find out the association between knowledge scores of adolescents with their demographic variables regarding blood and organ donation reveals that there is association between knowledge scores when compared to age ( $\chi^2=13.58$ ) and there is no-association between knowledge scores when

compared to sex ( $\chi^2=1.43$ ), Religion ( $\chi^2= 2.067$ ), family type ( $\chi^2=0.056$ ), Education ( $\chi^2= 6.63$ ), Health Resources ( $\chi^2= 5.74$ ) and Registration ( $\chi^2=3.52$ ).

**SECTION -F      ASSOCIATION   OF   ATTITUDE   SCORES  
REGARDING   BLOOD   AND   ORGAN  
DONATION   AMONG   ADOLESCENTS   WITH  
THEIR SELECTED DEMOGRAPHIC VARIABLES.**

**Table: 8**                      Association of attitude scores regarding blood and organ donation with with their selected demographic variables.

n= 100

S. No	Demographic Variables	Level of Attitude						X <sup>2</sup>	Table Value	Inference
		Favorable		Moderately Favorable		Unfavorable				
		No	%	No	%	No	%			
1	AGE									
1.1	14 – 17 yrs	18	18	10	10	-	-	3.55 (df=4)	3.84	(NS)
1.2	18 – 21 yrs	59	59	13	13	-	-			
2	SEX									
2.1	Male	50	50	21	21	-	-	5.98 (df=4)	3.84	(S)
2.2	Female	27	27	2	2	-	-			
3	RELIGION									
3.1	Hindu	67	67	20	20	-	-	7.89 (df=6)	7.82	(S)
3.2	Christian	10	10	1	1	-	-			
3.3	Muslim	-	-	2	2	-	-			
3.4	Others	-	-	-	-	-	-			

S. NO	Demographic Variables	Level of Attitude						X <sup>2</sup>	Table Value	Inference
		Favorable		Moderately favorable		Unfavorable				
		No	%	No	%	No	%			
4	<b>FAMILY TYPE</b>									
4.1	Nuclear Family	54	54	17	17	-	-	0.12 (df=4)	3.84	(N.S)
4.2	Joint Family	23	23	6	6	-	-			
7	<b>Education</b>									
7.2	Primary Education	33	33	15	15	-	-	2.26 (df=6)	9.49	(N.S)
7.3	Secondary Education	22	22	5	5	-	-			
7.4	Higher secondary Education	9	9	1	1	-	-			
7.5	Graduate	13	13	2	2	-	-			
5	<b>Sources of Information</b>									
5.1	Television Programme	47	47	14	14	-	-	0.02 (df=4)	5.99	(N.S)
5.2	Radio Progarmme	6	6	2	2	-	-			
5.3	News paper	24	24	7	7	-	-			

6	<b>Registration</b>									
6.1	Yes	6	6	1	1	-	-	0.32		
6.2	No	71	7 1	22	22	-	-	(df=2)	3.84	(N.S)

(p< 0.05) NS = Not Significant, S = Significant

Chi Square values were calculated to find out the association (table 7) between the attitude scores adolescents with their demographic variables regarding blood and organ donation reveals that there is association between attitude scores when compared to sex ( $\chi^2=5.98$ ), Religion ( $\chi^2=7.89$ ) and there is no association between attitude scores when compared to age ( $\chi^2=3.55$ ), family type ( $\chi^2=0.12$ ), Education ( $\chi^2=2.26$ ), sources of Information ( $\chi^2=0.02$ ) and Registration ( $\chi^2=0.32$ ).

## CHAPTER - V

### DISCUSSION

The aim of this present study was to assess the knowledge and attitude regarding blood and organ donation among adolescents in urban area in Nanchiyampalayam at Dharapuram. 100 adolescents were selected for the study by using Non probability purposive sampling technique; the data were collected by using structured interview schedule and collected data was statistically analyzed. This chapter attempts to discuss the findings of the study as per objective. These findings are discussed under the following headings,

1. Assess the knowledge regarding blood and organ donation among adolescents.
2. Assess the attitude regarding blood and organ donation among adolescents.
3. Find out the relationship between knowledge and attitude regarding blood and organ donation among adolescents.
4. Find out the association between the level of knowledge regarding blood and organ donation with their selected demographic variables.
5. Find out the association between the level of attitudes regarding blood and organ donation with their selected demographic variables.

### **Description of the demographic characteristics of adolescents**

The data analysis revealed that the highest percentage 72% of adolescents were in the age of 18-21 years. Majority of adolescents 71% were male. Highest percentage 87% of the adolescents was Hindus. Majority 71% of the adolescents were nuclear family. The highest percentage 61% of adolescents got health sources information from Television programme. Majority of adolescents 93% were not registered their names for blood & organ donation. Highest percentage of adolescents 27% had secondary education.

### **FIRST OBJECTIVE**

#### **ASSESS THE KNOWLEDGE REGARDING BLOOD AND ORGAN DONATION AMONG ADOLESCENTS.**

The data analysis showed that, the assessment of knowledge regarding blood and organ donation among 100 adolescents revealed 33% had inadequate knowledge, 57% had moderately adequate knowledge and 10% had adequate knowledge. Area wise analysis shows that mean score of physiology of blood is 2.48(SD $\pm$ 1.2), blood donation criteria 3.83(SD $\pm$ 1.47), care following blood donation 0.83(SD $\pm$ 0.67), safe blood donation 1.43( $\pm$ SD0.53%), meaning of organ donation 1.37(SD $\pm$  0.70) type of organ donation 0.85(SD $\pm$ 0.71), criteria for organ donation 4.97(SD $\pm$ 2.21) ,timing for organ donation 1.92(SD $\pm$ 1.6)and contraindications for organ donation 0.11(SD  $\pm$ 0.3). The overall mean knowledge scores of blood and organ donation among adolescents was 17.79(SD  $\pm$ 9.39). It revealed that there was a

need for creating awareness regarding blood and organ donation. This finding is consistent with the study findings of Androulakiz et. al., (2005) where 53.2% had inadequate knowledge about blood donation, and also it is consistent with the study funding of Anita Gupta et al (2008) where 67.9% had lack of awareness regarding organ donation.

## **SECOND OBJECTIVE**

### **ASSESS THE ATTITUDE REGARDING BLOOD AND ORGAN DONATION AMONG ADOLESCENTS.**

The data analysis showed that in assessing the attitude regarding blood and organ donation among 100 adolescents 77% had favorable attitude, 23% had moderately favorable attitude.

This finding was supported by the study conducted by Sophia.s Wang et. al., (2001) on public attitudes regarding the blood donation and storage of specimens. The study results revealed 42% had favorable attitude regarding blood donation. Christina ky chung et. al., (2008), conducted a study in Hong Kong to study attitudes of local medical students with regard to organ donation. A majority (85%) had a positive attitude but only a (23%) had signed the organ donation card.

## **THIRD OBJECTIVE**

### **FIND THE RELATIONSHIP BETWEEN KNOWLEDGE AND ATTITUDE REGARDING BLOOD & ORGAN DONATION AMONG ADOLESCENTS.**

The data analysis revealed that the relationship between knowledge and attitude score of blood & organ donation among adolescents showed that there is a positive correlation ( $r=0.268$ ) between knowledge score and attitude score of adolescents regarding



blood & organ donation. Hence the research  $H_1$ =There will be significant relationship between knowledge score and attitude score regarding blood and organ donation among adolescents was accepted.

This finding is consistent with the study findings of Samri S, where the results revealed medical students had highly positive attitude towards organ donation (mean score 4.34,  $\pm 0.46$ ). This may be because the medical students had adequate knowledge regarding organ donation.

#### **FOURTH OBJECTIVE**

**FIND THE ASSOCIATION BETWEEN THE LEVEL OF KNOWLEDGE REGARDING BLOOD AND ORGAN DONATION WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.**

The study showed that there was statistically significant association between the level of knowledge with age ( $\chi^2=13.58$ ) at  $p<0.05$ ) level. Therefore the research  $H_2$ = There will be significant association between knowledge score regarding blood and organ donation among adolescents with their selected demographic variables was accepted except for sex , religion, family type ,education, health resources, registration.

This finding is consistent with the findings of Peter J. (2006) where the results revealed the study samples from different culture and language groups (German, French & Italian) showed difference in the knowledge related to organ donation.

#### **FIFTH OBJECTIVE**

**FIND THE ASSOCIATION BETWEEN THE LEVEL OF ATTITUDES REGARDING BLOOD & ORGAN DONATION WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.**

The study showed that there was statistically significant association between the level of Attitude with sex ( $\chi^2=5.98$ ) and religion ( $\chi^2=7.89$ ) at  $P<0.05$  level. Therefore the research  $H_3$  = There will be significant association between attitude score regarding blood and organ donation among adolescents with their demographic variables was accepted except for age, type of family, education, health resources, registration.

This finding is consistent with the findings of Gonmez Y where the study findings revealed the main reason for not agreeing organ donation was belief of inappropriateness related to religion (25.7%), and there was no significant difference based on gender.

## CHAPTER – VI

### SUMMARY, CONCLUSION, IMPLICATION, RECOMMENDATIONS AND LIMITATIONS

This chapter is divided in to five aspects

- Summary of the study
- Conclusion
- Implication for nursing
- Recommendations
- Limitations

#### SUMMARY OF THE STUDY

This study was done to assess the knowledge and attitude regarding blood & organ donation among adolescents.

The research approach and design used for the study was descriptive survey approach and Non experimental descriptive design. This study was conducted in urban area in Nanchiyampalayam at Dharapuram. The conceptual framework was based on the community Nursing practice model-Marilyn E.parker (1996). The sample size was 100 adolescents who met the inclusion criteria were selected by Non probability purposive sampling method. The instruments used for data collection were structured interview schedule and five point likert scale.

The investigator gave brief introduction and the demographic data and the knowledge regarding blood and organ donation was assessed by using structured interview schedule. The attitude regarding blood and organ donation was assessed using five point likert scale 10 to 15 adolescents were selected from each street. 45 minutes was spent

for each study samples. 5 to 6 adolescents were interviewed per day. After collecting the data for 15 samples in one street, the SIM was distributed to the study subjects. The same procedure was carried out in all the other streets also. The data were analyzed and interpreted by using descriptive and inferential statistics.

**The major findings of the study:**

- Highest percentage (72%) of adolescents was in the age of 18-21 years.
- Highest percentages (71%) of adolescents were male.
- Highest percentages (87%) of the adolescents were Hindus.
- Majority (71%) of the adolescents belongs to nuclear family.
- Highest percentage (61%) of adolescents got health sources information from the Television.
- Majority (63%) of adolescents were not registered their names for blood & organ donation.
- Highest percentage (27%) was graduates.
- Majority (33%) of adolescents had inadequate knowledge regarding blood and organ donation. ( $\chi^2=19.879$
- Majority of the adolescents (68.5%) were aware about the meaning of organ donation and very few adolescents (11%) were aware of contra-indications for organ donation.
- Majority of the adolescents (77%) had favorable attitude towards blood and organ donation.
- There is a positive correlation ( $r=0.268$ ) between the knowledge and attitude score of blood and organ donation ( $p \leq 0.05$ ).
- There is significant association between knowledge score ( $p \leq 0.05$ ) of blood and organ donation with their selected demographic variables such as age ( $\chi^2 = 13.58$ ).

- There is significant association between attitude score ( $p \leq 0.05$ ) of blood and organ donation with their selected demographic variables such as sex ( $\chi^2 = 5.98$ ) and religion ( $\chi^2 = 7.89$ ).

### **CONCLUSION:**

The present study assessed the knowledge and attitude regarding blood and organ donation among adolescents. The result showed that 33% had inadequate knowledge, 57% had moderately adequate knowledge and 10% had adequate knowledge. In attitude 23% had moderately favorable attitude and 77% had favorable attitude. The mean knowledge and attitude scores are 17.81% ( $SD \pm 5.69$ ) and 54.56 ( $SD \pm 5.77$ ). The study revealed there was a positive correlation ( $r = 0.268$ ) between knowledge and attitude score of blood and organ donation. This study finding concluded that the adolescents in the community had less knowledge regarding blood and organ donation. The SIM will play an important role in improving the knowledge and positive attitude of adolescents regarding blood and organ donation.

### **NURSING IMPLICATIONS:**

#### **Nursing Service:**

- The Self Instructional module (SIM) can be used by community health nurse to implement the health education and for conducting awareness programmes in the community.

#### **Nursing Education:**

- Students should be given the opportunity to organize and conduct awareness programmes on blood and organ donation in hospitals as well as in community.
- Teachers can motivate the students to do mini project among various age groups on blood and organ donation.

- Students can conduct mass education programme in community by using A. V such as handout, poster, television, laptop and compact disc.

#### **Nursing administration:**

- ✓ Nursing administrator can formulate policies that will include all nursing staff to be actively involved in health education programme in their respective community areas.
- ✓ Nurse administrators have more responsibility as supervisors on creating awareness among various age groups regarding blood and organ donation by facilitating free distribution of booklets, handouts charts regularly to various age groups in urban and rural areas.

#### **Nursing Research:**

- The findings may be utilized by the emerging researchers for their reference purpose.
- A Qualitative study can be conducted among people who had given blood and organs.
- An Experimental study can be conducted among the schools and colleges.

#### **RECOMMENDATIONS:**

- A similar study can be done in different settings such as urban and rural areas.
- Similar study can be done on larger samples.

#### **LIMITATION:**

- ❖ The study was time consuming to make the adolescents to understand as there is an individual difference in their understanding level.

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# SELF INSTRUCTIONAL MODULE ON BLOOD AND ORGAN DONATION



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## INTRODUCTION:-

There is no caste, creed, community, religion, race,  
nation and sex for blood. Blood donations bring self



confidence in individuals, save the life of others; develop National integration and international understanding. Blood donation is globalizing nowadays. Awareness to donate blood has been created by motivation of eligible and prospective donors.

### **BLOOD DONATION:**



Blood donation is the donation of whole blood or its components such as blood cells and plasma from one person to another person.

### **Physiology of Blood**



There is about 5.6 litres of blood in an adult body. The blood is composed of plasma and blood cells (white Blood cells, red cells and platelets) Each Milli litre of blood contains 4 to 5 million red blood cells 4000 to 11,000 white blood cells 1.5 to 4 lakhs of platelets.

Plasma transport proteins, including antibodies clotting factors and nutrients like glucose for energy around the body.

White blood cells destroy the germs which invade the body and have a life of 7 hours.

Red blood cells transport oxygen through out the body and have a life of 120 days.

Platelets ensure to stop bleeding and have a life of 5 days.

## TYPE OF BLOOD GROUPS:



Human blood is classified into four main groups A, B, AB and O. There are two major blood grouping systems ABO system (Blood group A, B, AB and O) and Rhesus system (Rh positive and Rh negative) based upon the types of antigen present in the red blood cells as well as the type of antibodies present in the plasma.

## SAFE BLOOD



Safe blood is the blood that does not contain any viruses, parasites, drugs, alcohol, chemical substances or other extraneous factors that might cause harm, danger or diseases to the recipient. People who donate blood should be in good health and should not suffer or have suffered from any serious illness. It should be free from HIV Virus. Hepatitis B and C malaria, filaria and syphilis.

A healthy person has healthy blood. Every one should safeguard their health by caring for precious life source, their blood. Good nutrition a clean and healthy, life style, proper prevention and early treatment of diseases contribute to healthy blood.

## CRITERIA FOR BLOOD DONATION:



1. Age : Between 18 – 65 years
2. Sex : Both sexes. Females should not donate during menstruation. Pregnant ladies should be deferred from donating blood.
3. Weight : Both sexes above 45Kg.
4. Hemoglobin : should be within normal limit (12.5-16 gm /dl)
5. Blood pressure : systolic pressure should be 90-120 mm of Hg and diastolic pressure should be 60-80 mm of Hg.
6. Surgical procedures : Donors who have undergone operation should be deferred for at least 6 months .
7. Interval : A Minimum of 90days interval should be there from one donation to next donation.
8. Health Status : Should be free from AIDS, Syphilis, malaria,

Filarial, Malignant, Diseases, Cardio  
vascular

diseases, Renal disease, Viral hepatitis,  
Epilepsy and bleeding disorders.)

### Donor Selection:



Donor Selection is based on the above mentioned 8 points and on a limited physical examination and a medical history that will determine whether giving of blood will harm the donor or transfusion of the unit will harm the recipient. Careful donor selection contributes vitally to the safety of both donor and recipient.

### Screening Tests:



The blood collected from the donor should be subjected for the following screening tests which are mandatory.

1. HBS Ag (Australian Antigen)
2. HIV I and II AIDS
3. VDRL (Venereal disease)
4. MP (Malaria)
5. PCV (Packed cell volume)
6. Hb (Hemoglobin)
7. HCV (Hepatitis c virus)



Once the blood is confirmed negative for HBs Ag, HIV, VDRL, MP and HCV it is ready for transfusion.

Every blood donor is eligible for the blood screening test report. Blood donors are really noble persons.

### Care Following Blood Donation:



1. Enjoy light refreshment and rest for at least 10 -15 minutes.
2. Do not leave the donor site without the permission from staff member.
3. If you feel dizzy or faint lie-down or sit-down with your head between your knees until you feel well.
4. Drink more than usual amount of fluids
5. Leave the gauze or band aid for 4 -6hrs at the needle pricked site and do not get it wet.
6. Blood donation does not affect one's regular activities at all.

About 350 – 450 ml of blood is withdrawn from a person during each blood donation. After donation it takes 36 hrs for fluid volume and 21 days for blood cell count to return to normal. The minimum duration required between each blood donation is 3 months.

### Organ Donation:



Organ donation is the process of removal and transplantation of viable organs from donor to recipient.

Recipients have to be matched with the donor organ in order to reduce the recipients of the new organ.

**Organs:** Heart, Lungs, Liver, Intestine, Kidney and pancreas

**Tissues:** Whole blood/ components Tendon, ligaments skin, heart valves , Bone, Bone marrow and blood vessels

A living donor can give a kidney, partial liver, bone marrow and blood to help save the life of another.

### Type of Donor:

#### Living or Deceased:



In Living donors, the donors remains alive and donates a renewable tissue, cell or fluid (e.g. Blood , skin) or donates an organ or part of an organ in which the remaining organ can regenerate or take on the work

load of the rest of the organ (Primarily single kidney donation, partial donation of liver, small bowel or pancreas)

Deceased (formerly cadaver) are donors who have been declared brain dead and whose organs are kept viable by ventilator or other mechanism until they can be excised for transplantation.

### Reasons for Donation:

#### Living Related:

Living related donors donate to family members or friends in whom they have all



emotional investment. The risk of surgery is off set by Psychological benefit of not losing some a one related to them, or not seeing them suffer the ill effects of waiting on a list.

### Paired Exchange:



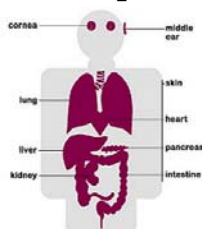
A Paired exchange is a technique of matching willing living donors to compatible recipients, for example a spouse may be more than willing to donate a kidney to their partner but can not since there is not a biological match. The second donor must match the first recipients to complete the pair exchange.

### Good Samaritan:



“Good Samaritan or altruistic” donation is giving donation to some one not well known to the donor. Some people choose to do this out of need to donate. Some donate to the next person on the list; others use some method of choosing a recipient based on criteria important to them.

### Compensated donation:



This general describes donors that donate their organs is exchange for some form the compensation usually monetary.

### Donation Criteria:



The general criteria for tissue donation are not as stringent as it is for organ donation. Almost any one who dies can be a tissue.

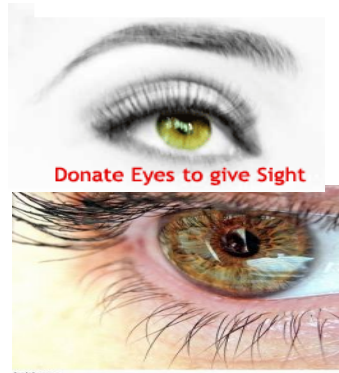
### Contra indications:

#### Absolute:



- ❖ Age older than 80 years
- ❖ HIV and hepatitis B and hepatitis injections
- ❖ Rabies
- ❖ Acute metastasis cancer
- ❖ General bacterial or viral infection
- ❖ Prolonged hypotension or hypothermia

### Eye donation



Eye donation can be pledged by the individual when a person is alive. Closed relatives only will be pledged eye donation after death of an individual. Eye bank should be contacted immediately after death of an eye donor. With in six hours the eye should be removed after death.

### Donor Card



Donor Cards in different languages and organ donation awareness campaigns are the focus of the public education group. The Donor card in English was the first to be launched on 12th January 1997. The Donor card enables people to express their wish to donate their organs. These Donor Cards are distributed along with a brochure entitled “A Priceless Gift,” which explains the concept of organ donation.

#### **CONCLUSION:**

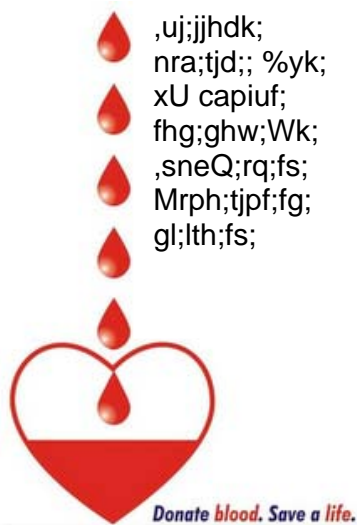
The young generations of our country should volunteer themselves and should march forward for the gift of blood and organ with the motto that there would be no buying and selling of blood, none would die for want of blood and organ required for transfusion and transplantation. The gift of love would flow from the healthy to the ailing as a natural social process. The youth should continue to donate blood and organ, this inspire others to join this festival of life.

SUPPORT ORGAN & BLOOD DONATION TO



SAVE A LIFE

,uj;jk; kw;Wk; cWg;Gj;jhdk; gw;wpa Raf;Fwpg;G gbt;



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**J. mDRah>**

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,uj;jj;jpw;F [hjp> ,dk;> Fyk;> rKjhak;> kjk;> nfhs;if>  
fyr;rhuk; kw;Wk; ghypdk;> ehL vd ve;j tpj;jpahRkK; fpilahJ.  
,uj;j jhdk; nra;tJ kdpjDila Ra ek;gpf;ifia ngUf;FfpwJ,  
kw;wth;fSila tho;it fhg;ghw;WfpwJ. Njr xw;Wik kw;Wk;  
cyfshtpa ey; czh;TfisAk; tsh;f;fpwJ. jw;NghJ ,uj;jjhdk; cyf  
kakhf;fg;gl;Ls;sJ. ,uj;jjhdk; nra;a Ntz;Lk; vd;w tpopg;Gzh;it  
jFjp tha;e;j jhdk; nra;gth;fspkUe;J vjph;ghh;f;fg;gLfpwJ.

**,uj;jjhdk; :-**



,uj;jjhdk; vd;gJ KO ,uj;jKk; my;yJ mjd; gFjp nry;fshd  
,uj;j nry; kw;Wk; gpsh];khit xU eghplkpUe;J kw;nwhU  
egUf;F jhdk; nra;tjhFk;.

**,uj;jj;jpd; nray;ghLfs; :-**

nghpath;fspd; clypy; 5 - 6 ypl;lh; ,uj;jk; fhzg;gLfpwJ.  
,uj;jk;> gpsh];kh kw;Wk; ,uj;j nry;fshy; MdJ (nts;is mZ> ,uj;j





rptg;GZ> ,uj;j jl;il mZ). xt;nthU kp.yp ,uj;jj;jpYk; 4 Kjy; 5 kpy;ypad; ,uj;j rptg;gZf;fSk;> 4000 - 11000 nts;is mZf;fSk;> 1.5 Kjy; 4 yl;rk; jl;il mZf;fSk; cs;sd.

**gpsh];kh** Gujj;ij flj;JfpwJ. vjph; mZf;fisAk; NkYk; ,uj;jk; ciwYf;fhd vjph;g;G rf;jpfisAk; mspf;fpwJ.

**nts;is** mZf;fs; clyf;Fs; EioAk; Ez;fpUkpfis mopf;fpwJ. ,J 7 kzpNeuk; ,uj;jj;jpy; caph; thOk;.

**,uj;j rptg;gZf;fs;** cly; KOtjw;Fk; Mf;[prid flj;Jfpwd> kw;Wk; ,J 120 ehl;fs; ,uj;jj;jpy; caph; thOk;.

**jl;il mZf;fs;** ,uj;j frpit jLj;J epWj;JfpwJ. ,J 5 ehl;fs; ,uj;jj;jpy; caph; thOk;.

**,uj;jj;jpd; tiffs; :-**



kdpj ,uj;jk; Kf;fpakhd ehd;F tiffspy; cs;sd. v> gp> vgp> x. mtw;wpy; ,uz;L Kf;fpakhd ,uj;j tif mikg;G v gp x kw;Wk; Mh; `r; mikg;G (Mh; `r; - Neh;> Mh; `r; - vjph;) ,itfs; ,uj;j rptg;gZf;fs; cs;s Md;l;b[d; tif mbg;gilapYk; mJNghyNt gpsh];khtpYs;s Mz;l;bghb tiffspd; mbg;gilapYk; tifg;gLj;jg;gLfpd;wJ.

**ghJfhg;ghd ,uj;jk; :-**



ghJfhg;ghd ,uj;jk; vd;gJ ngw;Wf; nfhs;gtUf;F nrYj;jg;gLk; ,uj;jj;jpy; itu];> xl;Lz;zpf; kUe;Jfs;> kJ> Ntjpg;nghUl;fs;> jPikahd> mghafukhd Neha; tUtpf;ff;\$ba kw;Wk; gpw Mgj;jhd fhuzpfs; VJk; ,y;yhj ,uj;jNk ghJfhg;ghd ,uj;jk; MFk;. ,uj;jjhd; nra;gth;fs; ey;y cly; eyj;Jld; ,Ug;gJ mtrpak;. ve;j tpjkhd RftPdk;; cs;sth;fshfTk; my;yJ ,jw;F Kd;



fLikahd Nehahy; ghjpf;f glhjth;fshfTk; ,Uf;f Ntz;Lk;. vr;. l. tp  
itu];> n`gilb]; gp kw;Wk; rp> kNyhhpah> ahidf;fhy; Neha;  
kw;Wk; NkfNeha; ,itfs; ,y;yhj ,uj;jkhf ,Uf;f Ntz;Lk;.

cly; eykhd thplk; kl;LNk MNuhf;fpakhd ,uj;jk; ,Uf;Fk;. xt;nthU tUk;  
jq;fspd; eykhd thof;if Kiwfis nfhz;L ey;y ,uj;jj;jhy; cly; eyj;ij ghJfhj;Jf;  
nfhs;s Ntz;Lk;. ey;y Rj;jhd czT cl;nfhs;s Ntz;Lk;. Neha; tha;gl;l cINdNa  
kUj;Jt rpfpr;ir kw;Wk; Kd;ndr;rhp;ifahd eltb;iffs; %yk; ehk; MNuhf;fpakhd  
,uj;jj;ij jf;f itj;Jf; nfhs;syhk;.

**,uj;jjhd; nra;tjw;f;fhd jFjpf; :-**



- |                                         |                                                                                                                                 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1 taJ                                   | 18 Kjy; 65 taJ tiu                                                                                                              |
| 2 ghy; ,dk;                             | ,UghyUk; kfsph; khjtPlha; fhyq;fspYk;><br>kfg;Ngw;wpd; NghJk; ,uj;jjhd; nra;af;\$lhJ.                                           |
| 3 vil                                   | ,UghyUk; 45 fp.fp Nky; ,Uf;f Ntz;Lk;                                                                                            |
| 4 ,uj;j rptg;gZf;fs;<br>(`PNkhFNshgpd;) | 12.5Kjy; 16 fpuhk;/nl.yp ,Uf;f Ntz;Lk;.                                                                                         |
| 5 ,uj;j mOj;jk;                         | ,ja fPoiwfs; RUq;Fk; NghJ 90 - 120 /kp.kp<br>`r;. [p kw;Wk; ,ja rPoiwfs; tphptilAk; NghJ<br>60 - 80/kp.kp `r; [p ,Uf;f Ntz;Lk;. |
| 6 mWit rpfpr;ir Kiwfs;                  | mWit rpfpr;ir nra;jth;fs; Fiwe;j gl;rk; 6<br>khjq;fSf;F ,uj;jjhd; nfhl;f;\$lhJ.                                                 |
| 7 fhy ,ilntsp                           | xU ,uj;j jhdj;jpw;Fk; kw;nwhU ,uj;j<br>jhdj;jpw;Fk; ,ilNa Fiwe;jgl;rk; 90 ehl;fs;                                               |

8 MNuhf;fpa epiy

,ilntsp ,Uf;f Ntz;Lk;.

,uj;jjhdK; nra;gth;fs; va;l;];> NkNeha;>  
kNyhhpah> ahidf;fhy; Neha;>  
Gw;WNeha;> ,Uja Neha;fs;> rpWePuf  
Neha;> <uy; Neha;fs;> fhf;fha; typg;G  
kw;Wk; ,uj;jNghf;F Neha;fs; ,itfs; ahTk;  
,y;yhjPuf;f Ntz;Lk;.

**jhdk; nra;gtiu Njh;e;njLj;jy; :-**



NkNy Fwpg;gpl;l vl;L jFjpf;f; mBg;gilapYk; kw;Wk;  
tiuKiw nra;ag;gl;l cly; jFjp Njh;T mBg;gilapYk;> nfhLg;gth;  
kw;Wk; ngw;Wf; nfhs;gth;fspd; kUj;Jt Fwpg;Gfspd; gb  
,UtUf;Fk; vt;tpjkhd ghjPg;Gk;> jPq;Fk; epfohj gb ghH;j;Jf;  
nfhs;s Ntz;Lk;. jhdk; nra;gtiu ftdkhd Kiwapy; Njh;T nra;tJ kpF  
Kf;fpakhdJ> vnddpy; ,J nfhLg;gth; kw;Wk; ngw;W nfhs;gth;  
,UtUf;FNk ghJfhg;ghdJ.

**,uj;j ghPNrhjid :-**



,uj;j jhdk; nra;gthplkpUe;J Nrfhpf;fg;gl;l ,uj;j;j fPo;f;fz;l ,uj;j  
ghPNrhjidfs; nra;a Ntz;Lk;.

1. `r;. gp. v]; v[p
2. `r; l tp I kw;Wk; II
3. tp bMh; vy;
4. kNyhhpah
5. gprptp
6. `r;gp

7. `r; rp tp  
Nkw;fz;l Nrhjidfis nra;J `r; gp v]; v[p> `r; l tp> tpbMh; vy;>  
kNyhpah kw;Wk; `r; rp tp fpUkpfs; ,y;iy vd;W mwpe;j gpwF ,uj;jhdk;  
nra;ayhk;.

,uj;jhdk; nra;Ak; xt;nthU egUk; ghpNrhjidf; Fl;gLj;j jFjpailath;fs;.  
,uj;j hdk; nra;Ak; xt;nthUtUk; cah;e;jth;fshf fUjg;gLthh;fs;.

**,uj;j hdk; nra;j gpwF nra;a Ntz;baitfs; :-**

1. vjhtJ jput czT cl;nfhs;syhk; kw;Wk; 10 - 15 epkplq;fs; Xa;T vLj;Jf; nfhs;syhk;.
2. jhdk; nra;j gpwF Copah;fspd; mDkjapad;wp ntspapy; nry;yf;\$lhJ.
3. kaf;f epiy my;y J}f;f epiy Nghd;Nwh ,Ue;jhy; gLj;Jf; nfhs;syhk; my;yJ cl;fhh;e;J jiyia Kl;bapd; kPJ itj;J rhjhuz epiy czh;Uk; tiu mkh;e;jpUf;fyhk;.
4. kw;w ehl;fistpl mjpgf msT jput czT vLj;Jf; nfhs;syhk;.
5. Crp Fj;jpa ,lj;jpy; gQ;R my;yJ Ngd;NI[; itj;J 4 Kjy; 6 kzp Neuk; tiu <uk; glhky; ghh;j;Jf; nfhs;s Ntz;Lk;.
6. ,uj;jhdk; nra;tJ ,ay;G epiyia vg;nghOJk; ghjpf;fhJ.



xt;nthU ,uj;j jhdj;jpd; NghJk; fpl;l;j;l 350 - 450 kp.yp ,uj;jk; vLj;Jf; nfhs;sg;gLk; . ,uj;j hdk; nra;j 36 kzpNeuj;jpw;Fs; mNj msT jputKk; kw;Wk; 21 ehl;fSf;Fs; ,uj;j nry;fspy; ,ay;ghd vz;zpf;ifAk; jpUk;g te;J tpLk; . ,uj;jhdk; nra;a Fiwe;j gl;r fhy ,ilntsp 3 khjq;fs; MFk;.

**cWg;Gjhdk; :-**



cWg;Gj;jhdk; vd;gJ caph; cs;s cWg;Gfis  
nfhLf;fg;gthplkpUe;J vLj;J Njit cs;sth;fSf;F nghUj;JtJ.

jhdk; ngw;w cWg;G ngw;W nfhs;gthpd; cWg;Gld;  
xj;Jtu Ntz;Lk;.

**cWg;Gfs; :-** ,jak;> EiuaPuy;> fy;yPuy;> Fly;> rpWePufk; kw;Wk;  
fizak;.

jpRf;fs; : ,uj;jk;/jirehh;> vOk;Gfis gpidf;Fk; jirehh;> Njhy;> ,ja  
thy;Tfs;> vYk;G> vYk;G k[;ir> ,uj;j ehsq;fs;.

rpWePufk;> gFjp<uy;> vYk;Gk[;ir kw;Wk; ,uj;jk; Nghd;witfs;  
vy;yhk; capNuhL ,Uf;Fk; nghOJ jhdk; nra;ayhk;. ,jdhy; kw;wth;fSila tho;it  
fhf;fyhk;.

**jhdk; nra;gthpd; tiffs; :-**

**capNuhL ,Uf;Fk; nghOJ cWg;G jhdk; nra;gth;fs; :-**



jhdk; nra;gth;fs; capUld; tho;gth;fs; kw;Wk;  
GJg;gpf;ff;\$ba jpRf;fs;> nry;> jputk; mitfis jhdk; nra;yhk;  
my;yJ xU cWg;G my;yJ gFjp cWg;ig jhdk; nra;ayhk;.  
cUthf;ff; \$ba my;yJ gFjpcWg;Gfs; %yk; ,aq;f \$ba tifapy;  
capUld; cs;sth;fs; jhdk; nra;thh;fs;.

**khpj;j gpwF cWg;G jhdk; nra;gth;fs; :-**

%is nraypoe;j gpwF kw;Wk; khpj;j gpwF cly; cWg;Gfis (nray; cs;s  
cWg;Gfis) jhdk; nra;thh;fs;.

**jhdk; nra;tjw;fhd fhuzq;fs; :-**

**cwT Kiwfs; :-**



jhdk; nra;gth;fs; FLk;g egUf;fhf my;yJ ez;gh;fSf;fhf  
czh;r;rpG+h;tkhf cWg;G jhdk; nra;thh;fs;. cwtpdh;fs; jq;fis

tpl;L gphpe;J tplf;\$lhJ vd;gjw;f;fhf cwtpdh; cWg;G jhdk; nra;J.

**,izgwpkhw;wk; :-**



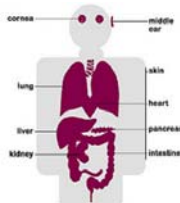
cWg;G jhd ,izghpkhw;wk; vd;gJ jhdk; nra;a tpUg;gKs;stUila cWg;ig nghUj;jKs;s xU egUf;F jhdk; nra;tJ. cjhuzkhf xU fztUf;F kiztp rpWePufk; jhdk; nra;a tpUk;gpdhYk;> cWg;G nghUj;jkpy;yhj epiyapy; nghUj;jKs;s xUthpd; cWg;ig fz;lwpe;J nghUj;JtJ.

**cWg;G jhdj;jpy; gpwh; eyd; fUJgth; :-**



cWg;G jhdk; nra;gth; Kd; gpd; njhpahj egUf;F jhdk; nra;gth;fs;. jhdk; nra;a tpUk;Gk; rpyh; Njit cs;sth;fSf;F toq;Fth;. rpyh; cWg;G jhd gl;baypy; cs;s mLj;j egUf;F toq;Fth;. mjhtJ ahh; cWg;ig Vw;Wf; nfhs;s cly; jFjp cs;sth;fNsh mth;fSf;F toq;fg;gLk;.

**<L nra;Ak; jhdk; :-**



<L nra;Ak; jhdk; vd;gJ rpyh; gzj;jpw;fhf my;yJ xU rpytw;iw vjph;ghh;j;J jhdk; nra;thh;fs;.

**cWg;Gjhdk; nra;tjw;f;fhf jFjpfs; :-**



cWg;G jhdk; nra;tJ fl;lhaky;y. ahuhtJ khpj;jhy; cWg;Gf;fis jhdk; nra;ayhk;.

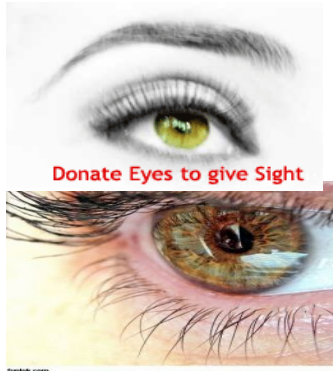
**cWg;G jhdk; nra;af; \$lhjth;fs; :-**



1. 80 taJf;F Nky;
2. vr;. l>.tp kw;Wk; `gilb]; gp
3. eha;fb Neha;
4. Gw;WNeha;

5. ghf;Bhpah my;yJ itu]; fpUkpfs;.
6. neLehs; ,uj;j mOj;jk; my;yJ ,ay;Gf;F khwhd Fiwe;j cly; ntg;g epiy.

**fz; jhdk; :-**



xU egh; capNuhL ,Uf;Fk; nghONj fz; jhdk; nra;Ntd; vd;W cWjpnkhop mspf;f Ntz;Lk;. fz;jhdk; nra;af;\$ba egh; khpj;jgpd; me;j egUila neUq;fpa cwtpdh;fs; fz; jhdj;jpw;F rk;kjk; njhpf;f Ntz;Lk;. fz;jhdk; nra;af; \$ba xUth; khpj;j cINd fz; tq;fpf;F njhpag;gLj;j Ntz;Lk;. mLj;j 6 kzp Neu;j;jpw;Fs; khpj;jthplkpUe;J fz; ePf;fg;gl Ntz;Lk;.

**cWg;G jhd ml;il :-**



ehq;fs; cWg;G jhdj;jpw;F cWjpnkhop mspj;J ehq;fs; GJikia cUthf;FfpNwhk;.

cWg;Gjhd ml;il gy nkhofspy; cs;sd> kw;Wk; r%f fy;tp Fof;fs; Kfhk;fs; %yk; cWg;Gjhd tpopg;Gzh;T mspf;fg;gLfpwJ. 1977 [dthp 12e; Njjp Kj;d; Kjypy; Mq;fpy;jjpy; cWg;Gjhd ml;il ntspaplg;gl;IJ. ,e;j cWg;Gjhd ml;il kf;fspd; cWg;G jhd tpUg;gj;ij njhptpf;f cjtpahf ,Uf;fpwJ.

cWg;Gjhd ml;il 'xU tpiykjpg;gw;w ghpR" vd;w jiyg;gpy; ntspaplg;gLfpwJ.  
mJ kf;fSf;F cWg;G jhdj;jpd; fUj;ij tpsf;FfpwJ.

### **KbTiu :-**

ekJ ehl;bd; ,se;jiyKiwapdh; ,uj;j jhdk; kw;Wk; cWg;G jhdj;jpw;F  
Fwpf;NfhSld; jkhfNt Kd; tu Ntz;Lk;. ,uj;jk; kw;Wk; cWg;Gfis tpw;fNth  
thq;fNth \$lhJ. ,uj;jk; kw;Wk; cWg;Gfs; ,y;iy vd;W ahUk; khpf;ff;\$lhJ. cly;  
eyk; cs;sth;fspkUe;J Njit cs;sth;fSf;F ,e;j md;ghd ghpR fpilj;J Njrj;jpd;  
r%f Nritfs; tsul;Lk; ,isQh;fs; njhlh;e;J ,uj;j jhdk; kw;Wk; cWg;G jhdk; nra;J  
kw;wth;ifAk; Cf;fg; gLj;jp ,jpy; fye;J nfhs;s nra;ayhk;.

caph;fis fhg;ghw;w



,uj;j jhdk; kw;Wk; cWg;G jhdk; nra;J cjTq;fs;



## APPENDIX - A

அனுப்புநர்  
திரு. சா. துரை.எம்.ஏ.,  
ஆணையர்  
தாராபுரம் நகராட்சி

பெறுநர்  
முதல்வர்  
பிஷப்நர்சிங் கல்லூரி  
சி.எஸ்.ஐ மிஷன் காம்பவுண்ட்  
தாராபுரம்

ந.க.எண் 3352/09/எச்1

நாள் 22.04.10

பொருள் :- தாராபுரம் நகராட்சி - நகராட்சி பகுதிகளில் நோய்கள் பற்றி  
பொதுமக்களிடம் விழிப்புணர்வு ஆய்வு கட்டுரை சமர்ப்பிக்க MSc (N)  
மாணவிகளுக்கு அனுமதி அளித்தல் - தொடர்பாக.

பார்வை :- முதல்வர் பிஷப் நர்சிங் கல்லூரி, தாராபுரம் அவர்களின் கடிதம்

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தாராபுரம் நகராட்சி எல்லைக்குட்பட்ட நஞ்சியம்பாளையம் பகுதியில்  
வார்டுஎண் 1,2,3, மற்றும் 4 ஆகிய பொதுமக்களிடம் நோய்கள் பற்றிய விழிப்புணர்வு  
குறித்து ஆய்வுக்கட்டுரை தயார் செய்ய தங்களது கல்லூரி MSc (N) இரண்டாம் ஆண்டு  
பயிலும் 1) செல்வி. லெடியா ஜாஸ்மின் 2) திருமதி. நீயா அனியன் 3) திருமதி. அனுசுயா  
4) செல்வி.சாலினி ஆகிய மாணவிகளுக்கு இதன்மூலம் அனுமதியளிக்கப்படுகிறது.

  
ஆணையர்  
தாராபுரம் நகராட்சி

  
22.4.10



**APPENDIX - B**  
**LETTER SEEKING EXPERT'S OPINION FOR**  
**VALIDITY OF TOOLS**

From

Mrs. D. Anusuya  
M.Sc. (Nursing) II year,  
Bishop's College of Nursing,  
Dharapuram.

To

Respected Madam/Sir,

**SUB:** Requisition for content validity of tool

I am M.Sc. (Nursing) second year student of Bishop's College of Nursing, Dharapuram, under Dr. M.G.R Medical University, Chennai. As a partial fulfillment of my M.Sc.(N) Degree Programme, I am conducting a research on **"A Study to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self instructional module "**. One of the initial steps of the research study is to develop a tool. I am sending the above stated for content validity and for your expert and valuable opinion.

I will be very thankful to return it to the undersigned.

" Your's sincerely,

**Encl;**

**(D .Anusuya)**

1. Certificate of content validity
2. Statement of problem, objectives, operational definition, hypothesis
3. Description of the tool and tool for data collection
4. Self addressed envelope

**Principal**

**APPENDIX - C**  
**COMMUNITY HEALTH NURSING**


**LIST OF EXPERTS OF VALIDATION**

- 1) **Prof. Mrs. Sivagami.R, M.Sc (N).,**  
HOD,  
Department of Community Health Nursing,  
KMCH College of Nursing,  
Coimbatore.
- 2) **Mrs. Amudha, M.Sc(N).,**  
Associate Professor,  
HOD of Community Health Nursing,  
Dhanvanthri College Of Nursing,  
Namakkal.
- 3) **Mr. Kandaswamy, M.Sc(N).,**  
HOD,  
Department of Community Health Nursing,  
Sri Gokulam College of Nursing,  
Salem.
- 4) **Mr.Y. John Sam Arun Prabu, M.Sc(N).,**  
Reader,  
Department of Community Health Nursing,  
CSI Jayaraj Annapackiam College of Nursing,  
Madurai.
- 5) **Prof.Dr.Arun Vijaya Paul,**  
Associate professor  
Department of Community Medicine  
Coimbatore Medical College  
Coimbatore

**APPENDIX – D**  
**CERTIFICATE FOR VALIDITY**

This is to certify that the structured interview schedule on “A study to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self-instructional module” has been validated by me and found appropriate with mentioned suggestions.

Signature :



Name :

ASSISTANT PROFESSOR OF S.P.M.,  
Department of Community Medicine,  
Coimbatore Medical College,  
Coimbatore-641 014

Designation :

ASSISTANT PROFESSOR OF S.P.M.,  
Department of Community Medicine,  
Coimbatore Medical College,  
Coimbatore-641 014

College :

Coimbatore Medical College,  
Coimbatore-641 014

## CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "A study to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self-instructional module" has been validated by me and found appropriate with mentioned

Signature : 

Name : KANDASAMY M

Designation : Assoc. Prof / HOD.

College : Sri Gokulam College of Nursing, Salem.

## CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "A study to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self-instructional module" has been validated by me and found appropriate with mentioned suggestions.

Signature : Y. [Signature]


Name : Y. JOHN SAM ARUN PARSU

Designation : READER

College : Q81, Jeyaraj Anna Prasa  
College Of Nursing  
Pasumpan  
MADURAI.

### CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "A study to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self-instructional module" has been validated by me and found appropriate with mentioned suggestions.

Signature :   
Name : Mrs. M. Amudha, M.Sc.N  
Designation : ASSO. PROF.  
College : DHANVANTRI COLLEGE  
OF NURSING,  
ERODE.

## CERTIFICATE FOR VALIDITY

This is to certify that the structured interview schedule on "A study to assess the knowledge and attitude regarding blood and organ donation among adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self-instructional module" has been validated by me and found appropriate with mentioned suggestions.

*Prof. Sivagami Ramonathan*  
M.Sc. (Nursing)  
HOD / Community Health Nursing  
KMCH College of Nursing, Coe-14

Signature : Km. Sivagami

Name : Rm. SIVAGAMI

Designation : HOD / PROFESSOR

College : KMCH COLLEGE  
OF NURSING  
COIMBATORE

## **APPENDIX - E**

### **CERTIFICATE OF ENGLISH EDITING**

#### **TO WHOM SOEVER IT MAY CONCERN**

This is to certify that the dissertation work, "A Study to assess the knowledge and attitude regarding blood and organ donation among the adolescents in Nanchiyampalayam at Dharapuram with a view to develop a self- instructional module," done by Mrs. Anusuya, II Year M.Sc (Nursing) student of Bishop's College of Nursing, Dharapuram is edited for English Language appropriateness by Mr.P.Sampath, M.A., M.Ed.,

Date : 12.01.11

Address :



Signature

(P.SAMPATH)

**P.SAMPATH, U.A., M.Phil., M.Ed.,  
Lecturer in English,  
Maharaja Teacher Training Institute,  
Dharapuram.**



**APPENDIX -F**

**CERTIFICATE OF TAMIL EDITING**

**TO WHOM SOEVERY IT MAY CONCERN**

This is to certify that the dissertation work, A study to assess the knowledge and Attitude regarding blood and organ donation among adolescents in Narchjampalayam at Dharapuram with a view to develop a self instructional module," done by Mrs. D.Anusuya , II Year M.Sc (Nursing) student of Bishop's College of Nursing, Dharapuram is edited for Tamil Language appropriateness by

சா.சு. செந்தில்குமார்

Date :

Address :

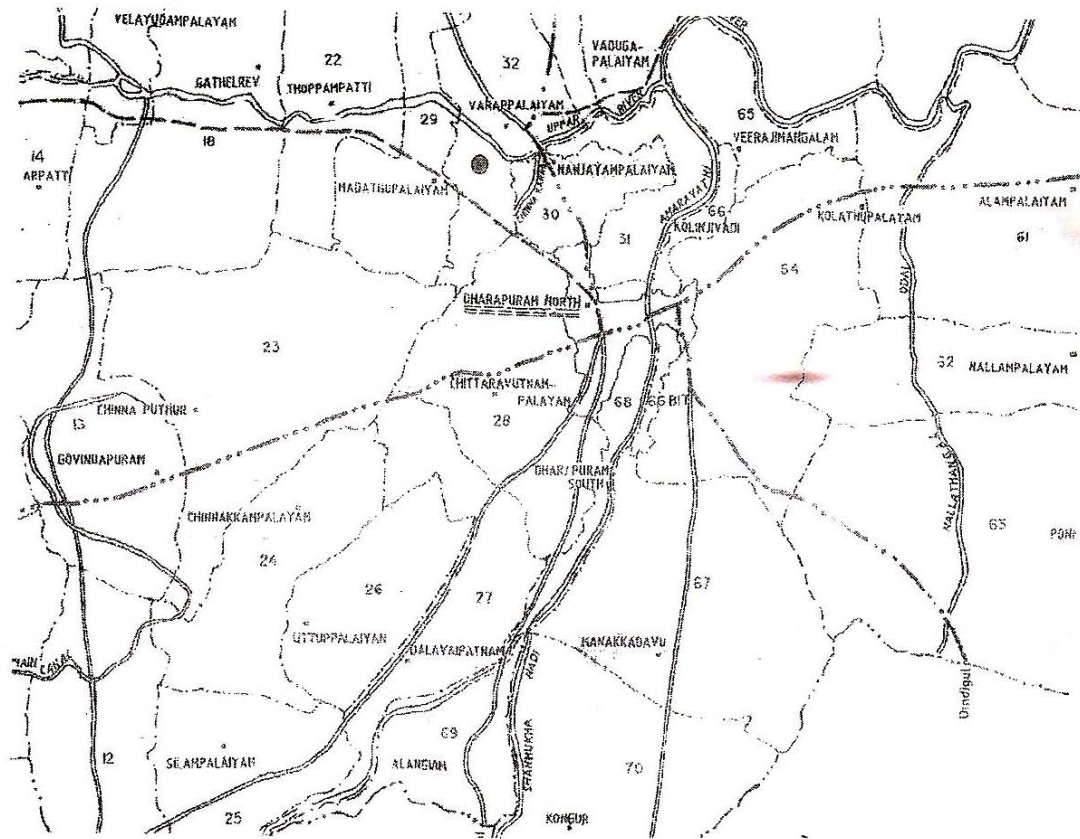
சா.சு. செந்தில்குமார்  
Signature,

(சா.சு. செந்தில்குமார்)

**D.M.SENTHIL KUMAR, M.A.,B.Ed.,M.P.N.,**  
**Guest Lecturer.**  
**Department of Tamil,**  
**Alagappa University Study Centre,**  
**DHARAPURAM - 638656.**

## APPENDIX - G

### NANCHIYAMPALAYAM AREA MAP



● Setting of the study

## APPENDIX – H

### DEMOGRAPHIC DATA

Structured interview schedule to assess the knowledge and attitude regarding blood and organ donation among adolescents.

#### PART – I

##### Instructions to the respondent :

Dear participants, I would like you to ask you some personal questions. Please give necessary information. All the information provided will be kept confidential.

**Sample No:**

1. Age

a) 14 – 17 years

b) 18 – 21years

2. Sex

a) male

b) Female

3. Religion

a) Hindu

b) Christian

c) Muslim

d) Others

4. Type of family
- a) Nuclear family ☐
  - b) Joint family ☐
5. Education
- a) Primary education ☐
  - b) Secondary education ☐
  - c) Higher secondary education ☐
  - d) Degree ☐
6. Health information resources
- a) Television ☐
  - b) Radio ☐
  - c) Newspaper ☐
7. Registered blood and organ donor
- a) Yes ☐
  - b) No ☐

**PART - II**  
**STRUCTURED INTERVIEW SCHEDULE**

1. Which one of the following are the common blood groups in human being?

- a) A, B, AB and O
- b) A, BO, AO and AB
- c) AB, B, A and AO
- d) B, AO, AB and O

2. What are the components of blood?

- a) Plasma and Fluid.
- b) Blood cells and Fluid.
- c) Plasma and blood cells.
- d) Electrolytes and Cells.

3. What do you mean by blood donation?

- a) Collecting the blood for investigations
- b) Storing of the blood for research in future
- c) Giving of blood for the purpose of transfusion.
- d) Receiving blood from others.

4. What is the average amount of blood in an adult body?

- a) 3-4 litres
- b) 5-6 litres
- c) 7-8 litres
- d) 2-3 litres

5. What is the purpose of blood donation?

- a) To transfuse blood to someone in need
- b) To get monetary benefit
- c) To let out the old blood
- d) To get fame from others.

6. What are the blood tests to be checked before blood donation?

- a) Hemoglobin & blood group
- b) Urea & Creatinine
- c) Sugar & Cholesterol
- d) Widal & LFT

7. What should be the minimum hemoglobin level of a person for blood donation?

- a) 10 gm /dl
- b) 14 gm /dl
- c) 12.5 gm /dl
- d) 16 gm /dl

8. What is the minimum body weight for blood donation?

- a) Below 40 kg
- b) 45 kg
- c) 55 kg
- d) 60 kg

9. What is the amount of blood with drawn from a person during each blood donation?

- a) 100-200 ml
- b) 350-450 ml
- c) 500-600 ml
- d) 650-1000 ml

10. What is the minimum interval required between each blood donation?

- a) 3 months
- b) 6 months
- c) One year
- d) Two years

11. Who can donate blood?

- a) Anyone who is willing to donate
- b) Those who have already donated.
- c) Those who are closely related.
- d) Person free from infective pathogens in blood.

12. How can we keep our blood volume adequate after donating blood?

- a) Good nutrition and adequate fluids
- b) Good personal hygiene and clean habits
- c) Good exercise and proper sleep
- d) Good environment and adequate bed rest

13. Which one of the following is a contraindication for donating blood?

- a) Person with HBs Ag / AIDS,
- b) Persons with obesity.
- c) Persons with pneumonia
- d) Persons with Mental disorders.

14. What is the instruction to be given to the donor following blood donation?

- a) Take special diet
- b) Drink more fluids
- c) Take rest for 3 hours
- d) Take vitamin tonics

15. Where is the safest place to donate blood?

- a) In any blood bank
- b) In any licensed blood bank
- c) In any nursing homes
- d) In any primary health centre

16. How long blood can be stored in the blood bank?

- a) 42 days
- b) 50 days
- c) 60 days
- d) 30 days

17. What is organ donation?

- a) Receiving a new organ
- b) Storing of the organs.
- c) Giving an organ to another person.
- d) Collecting the organs from others.

18. When the person can donate his/her organ?

- a) While alive & or after death
- b) Only when alive
- c) Only after death
- d) Only after brain death.

19. Which organ can be donated while alive

- a) Kidney
- b) Heart
- c) Lungs
- d) Liver



20. Which one of the following is the important step to be taken after identifying a potential Donor?

- a) Getting signed in the donor card
- b) Checking his blood group
- c) Doing tissue matching tests
- d) Obtain permission from Doctor

21. Which of the following is the minimum age for giving consent for donating organ?

- a) 18 years.
- b) 30 years.
- c) 10 years
- d) 40 years.

22. What is the meaning of brain death?

- a) Absence of Heart Rate
- b) Absence of Respiratory Rate.
- c) Irreversible cessation of brain function
- d) Absence of body movements.

23. What is a common cause of Brain death?

- a) Epilepsy
- b) Abdominal injury
- c) Severe head injury
- d) Fracture

24. What is the cadaver donation?

- a) Organ taken from animals
- b) Organ taken from dead body
- c) Organ taken from alive body
- d) Organ taken from twins.

25. When the eye donation can be pledged by the individual

- a) When a person is alive
- b) After death
- c) In the death bed
- d) When a relative or someone is in urgent need.

26. Who has the power to pledge for eye & organ donation after death of an individual?

- a) Close Relatives
- b) Friends
- c) Colleague
- d) Doctors

27. When the eye bank should be contacted after death of an eye donor?

- a) Immediately after death
- b) Three hours after death
- c) 2-3 hours after death
- d) 5-6 hours after death

28. Within how many hours the eye should be removed after death?

- a) 3 hours
- b) 6 hours
- c) 12 hours
- d) 14 hours

29. With in how many days the eye can be transplanted?

- a) 7 to 10 days
- b) 10to 20 days.
- c) 20to 30 days
- d) 30to 40 days

30. What are the contra indications for organ donation ?

- a) HIV, Hepatitis B, Rabies
- b) Multiple injury , abdominal injury, collapsed lung
- c) Asthma, dermatitis, Anemia
- d) Goitre, malnutrition, liver failure.

31. With in how many hours kidney can be Trans planted?

- a) 48-72 hours
- b) 28-48 hours
- c) 48-52 hours
- d) 20-48 hours

32. What do you mean by organ Transplant?

- a) Giving an organ to another person.
- b) separating an organ from alive person
- c) separating organ from dead body
- d) Grafting of the donor organ to recipient.

33. Who can receive the donated organ?

- a) Only Relative
- b) Only Siblings
- c) A person who meets the recipient criteria
- d) Only parents.

34. Where one can register himself for organ donation?

- a. Any voluntary agencies
- b. Any private hospitals
- c. Any licensed organ procurement organization (opo)
- d. Any Government hospitals

35. Which of the following organ can not be donated after death?

- a) Kidney.
- b) Heart.
- c) Eye.
- d) Muscle.

### PART - III

#### FIVE POINT LIKERT SCALE - ATTITUDE SCALE

S. No	Item	A	B	C	D	E
1 .	People are not scared of blood donation					
2 .	Blood donation has negative influence on health					
3 ☆	Women also can donate blood					
4 .	Donor needs special diet after blood donation					
5 .	It is safe to receive blood from a professional donor					
6 ☆	People should be motivated to donate blood					
7 .	People prefer to donate organs while they are alive.					
8 ☆	Human body should be useful even after death.					
9 ☆	Organ can be donated to any one who is in need.					
10 ☆	Any person can donate his body for medical research after his death.					
11 ☆	One should never support selling of organs.					
12 ☆	Family members should be given information before signing for organ donation.					

S. No	Item	A	B	C	D	E
13 ☆	It is necessary to inform the family of donors about recipient.					
14 ☆	Organ donation will not disfigure the body.					
15 ☆	One should be ready to donate organs of the family member after the death.					

• - Negative Statement

☆ - Positive Statement

## **tiuaWf;fg;gl;l NeHfhzy; ml;ltiz**

### **NeHfhzy; ml;ltiz :**

,uj;jk; kw;Wk; cWg;G jhdk; gw;wpa mwpTj; jpwid mwpjy;.

### **NeHKf NjHthsHfSf;fhd mwpTiufs; :**

NeHKfj; NjHthsH fPNo nfhLf;fg;gl;Ls;s tpdhf;fis NeHKfj; NjHtpy;  
gq;F ngWNthhplk; Nfl;f Ntz;Lk;. mt;tpdhtpw;F fPNo rpy gjpy;fs;  
nfhLf;fg;gl;Ls;sd. NeHKfj; NjHthsHfs; Nfs;tp kw;Wk; gjpy;fis  
gq;Nfw;ghsHfs; Ghpe;J nfhs;Sk; tiu jpUk;gj; jpUk;g \$w Ntz;Lk;. gpwF  
gq;F ngWNthH \$wpa tpilia ( ✓ ) vd;W Fwpapl Ntz;Lk;.

### **gq;F ngWNthHf;fhd mwpTiufs; :**

md;ghdtHfNs cq;fsJ Ra Fwpg;Gfs; gw;wpa jfty;fs; vdf;F  
Njitg;gLfpd;wd. ePq;fs; nfhLf;Fk; jfty;fs; ,ufrpakhf itf;fg;gLk;.

**rKjha FLk;g fhuzpfs;**

**khjphp vz;; :**

- |    |                                                       |                      |
|----|-------------------------------------------------------|----------------------|
| 1. | taJ                                                   | <input type="text"/> |
|    | m) 14 - 17 taJ                                        | <input type="text"/> |
|    | M) 17 - 21 taJ                                        | <input type="text"/> |
| 2. | ghypdk;                                               |                      |
|    | m) Mz;                                                | <input type="text"/> |
|    | M) ngz;                                               | <input type="text"/> |
| 3. | kjk;                                                  |                      |
|    | m) ,e;J                                               | <input type="text"/> |
|    | M) fpwp];Jtk;                                         | <input type="text"/> |
|    | ,) K];yPk;                                            | <input type="text"/> |
|    | <) kw;wth;fs;                                         | <input type="text"/> |
| 4. | FLk;g tpjk;                                           | <input type="text"/> |
|    | m) jdpf;FLk;gk;                                       | <input type="text"/> |
|    | M) \$l;Lf;FLk;gk;                                     |                      |
| 5. | fy;tpj; jFjp                                          |                      |
|    | m) Jtf;f fy;tp                                        | <input type="text"/> |
|    | M) Nky;epiyf;fy;tp                                    | <input type="text"/> |
|    | ,) cah;epiyf;fy;tp                                    | <input type="text"/> |
|    | <) gl;lg;gbg;G                                        | <input type="text"/> |
| 6. | Rfhjhuk; gw;wp jfty;fs; vjpypUe;J fpilf;fpwJ ?        | <input type="text"/> |
|    | m) njhiyf;fhl;rp                                      | <input type="text"/> |
|    | M) thndhyp                                            | <input type="text"/> |
|    | ,) nra;jpj;jhs;                                       |                      |
| 7. | ,uj;jk; kw;Wk; cWg;Gjhdk; nra;tjw;F gjpT nra;Js;stuh? |                      |
|    | m) Mk;                                                | <input type="text"/> |
|    | M) ,y;iy                                              | <input type="text"/> |



## gFjp - M

### mwpTj; jpwid mwptjw;fhd Neh;fhzy;

1. gpd; tUtdtw;Ws; ve;j tif ,uj;jk; nghJthf kdpjh;fSf;F ,Uf;fpwJ ?

m) v > gp > vgp kw;Wk; x

M) v > gpx> vx kw;Wk; vgp

,) vgp > gp > v kw;Wk; vx

<) gp > vx > vgp kw;Wk; x

2. ,uj;jj;jpy; cs;s gFjp nghUl;fs; ahit?

m) gpsh];kh kw;Wk; jputk;

M) ,uj;j nry;fs; kw;Wk; jputk;

,) gpsh];kh kw;Wk; ,uj;j nry;fs;

<) ,uj;jj;jpy; cs;s cg;Gfs; kw;Wk; nry;fs;.

3. ,uj;j jhdk; vd;why; vd;d?

m) ghpNrhjpg;gjq;fhf ,uj;jk; Nrfhpj;jy;

M) vjph;fhy Muha;r;rp;fhf ,uj;jk; Nrfhpj;J itj;jy;

,) kw;wth;fSf;F nrYj;Jtjw;f;fhf nfhLg;gJ.

<) gpwhplkpUe;J ,uj;jj;ij ngw;Wf; nfhs;Sjy;

4. nghpath;fspd; clypy; rhpahd ,uj;j msT vd;d?

m) 3-4 ypl;lh;

M) 5-6 ypl;lh;

, ) 7 -8 ypl;lh;

<) 2 -3 ypl;lh;

5. ,uj;j jhdj;jpd; Nehf;fk; vd;d ?

m) Njit cs;segUf;F nrYj;Jtjw;F

M) gzk; ngwyhk; vd;w Nehf;fj;jpw;fhf

,) gioa ,uj;jj;ij ntspapy; vLg;gjw;fhf

<) Gfo;r;rpia ngw;Wf; nfhs;tjw;fhf

6. ,uj;j jhdk; nra;tjw;F Kd; nra;a Ntz;ba ,uj;j ghpNrhjidfs; ahit?

m) `PNkhFNshgpd; kw;Wk; ,uj;jtif  
M) A+hpah kw;Wk; fphpNal;bdpd;  
,) rh;f;fiu kw;Wk; nfhOg;G  
<) tplhy; kw;Wk; <uy; nray;ghl;Lj;Njh;T

7. ,uj;j jhdk; nra;gtUf;F ,Uf;f Ntz;ba Fiwe;j gl;r `PNkhFNShgpd; msT  
vd;d?

m) 10 fp / nl.y  
M) 14 fp / nl.y  
,) 12.5 fp / nl.y  
<) 16 fp / nl.y

8. ,uj;jjhdk; nra;gtUf;F ,Uf;f Ntz;ba Fiwe;j gl;r cly; vil vd;d?

m) 40 fp.fpf;F fPo;  
M) 45 fp.f  
,) 55 fp.f  
<) 60 fp.f

9. ,uj;j jhdk; nra;gthplkpUe;J xt;nthU KiwAk; vLf;f Ntz;ba Fiwe;jgl;r  
,uj;jk; vt;tsT?

m) 100 - 200 kp.y  
M) 350 - 450 kp.y  
,) 500 - 600 kp.y  
<) 650 - 1000 kp.y

10. xt;nthU ,uj;j jhdj;jpw;Fk; ,ilg;gl;l Fiwe;jgl;r fhy msT vd;d?

m) 3 khjq;fs;  
M) 6 khjq;fs;  
,) 1 tUl;K;  
<) 2 tUl;K;

11. ahh; ,uj;j jhdk; nra;a KbAk;?

m) jhdk; nra;a tpUk;Gk; ahh; Ntz;LkhdhYk;  
M) Vw;fdNt ,uj;j jhdk; nra;jth;fs;

,) neUq;fpa cwtpdh;fs;  
<) ,uj;jj;jpy; fpUkp ,y;yhj egh; kl;Lk;.

12. ,uj;j jhdk; nra;j gpwF vg;gb ehk; ,uj;j msit NghJkhdjhf itg;gJ?

m) ey;y rj;Js;s czT kw;Wk; NghJkhd jput czTfs;

M) ey;y jd; Rj;jk; kw;Wk; Rj;jkhd gof;fk;

,) ey;y clw;gapw;rp kw;Wk; ey;y J}f;fk;

<) ey;y #o;epiy kw;Wk; NghJkhd Xa;T

13. gpd; tUdtw;Ws; vJ ,uj;j jhdj;jpw;F Kudhd xd;W?

m) <uy; ghjpf;fg;gl;l kw;Wk; va;l;j; cs;s egh;

M) cly; gUkdhd kw;Wk; Cl;lr;rj;J FiWAs;s egh;

,) EiuaPuy; ghjpf;fg;gl;l kw;Wk; MJ;Jkh cs;s egh;

<) kdek; kw;Wk; euk;Gf; Nfhshwpdhy; ghjpf;fg;gl;l egh;

14. ,uj;j jhdk; nra;gtUf;F nfhLf;f Ntz;ba Fwpg;Gfs; ahit?

m) rpwg;ghd czT

M) jput czT mjpfk; vLj;Jf; nfhs;Sjy;

,) 3 kzp Neuk; Xa;T vLj;Jf; nfhs;Sjy;

<) itl;lkpd; kUe;J vLj;Jf;nfhs;Sjy;

15. ,uj;jjhdk; nra;tjw;F jFjpahd ,lk; vq;Nf ,Uf;fpwJ?

m) VjhtJ xU ,uj;j tq;fp

M) mq;fpfhuk; ngw;w VjhtJ xU ,uj;j tq;fp

,) VjhtJ xU kUj;Jtkiz

<) VjhtJ xU Muk;g Rfhjhu epiyak;

16. ,uj;j tq;fpapy; ,uj;jj;ij vt;tsT ehs; Nrkpj;J itf;fyhk;?

m) 42 ehl;fs;

M) 50 ehl;fs;

,) 60 ehl;fs;

<) 30 ehl;fs;

17) cWg;Gj;jhdk; vd;why; vd;d?

m) Gjpa cWg;ig ngw;Wf; nfhs;Sjy;

M) cWg;Gfis Nrkpj;J itj;jy;

,) cWg;ig kw;w egUf;F toq;Fjy;

<) kw;wth;fspkUe;J cWg;ig Nrhpj;jy;

18) vg;ngHOJ xU egh; mth;fsJ cWg;ig jhdk; nra;ayhk;?

m) capNuhL cs;s NghJ my;yJ khpi;j gpwF

M) capNuhL cs;sNghJ kl;Lk;

,) ,we;j gpwF kl;Lk;

<) %is nray; ,oe;j gpwF kl;Lk;

19) ve;j cWg;ig capNuhL cs;s NghJ jhdk; nra;ayhk;?

m) rpWePufk;

M) ,jak;

,) Eiuapuy;

<) <uy;

20) Mh;tkha; cWg;G jhdk; nra;Ak; egui fz;ITId; gpd; tUtdtw;Ws; vJ

Kf;fpakhd gbepiy?

m) cWg;G jhd ml;ilapy; ifnahg;gk; thq;Fjy;

M) ,uj;j tifa Nrhpj;jy;

,) jpR ,iz Nrhid nra;jy;

<) kUj;JthplkpUe;J mDkjp thq;Fjy;

21) gpd;tUtdtw;Ws; cWg;G jhdk; nra;a Fiwe;jgl;r taJ vJ?

m) 18 taJ

M) 30 taJ

,) 10 taJ

<) 40 taJ

22) %is nraopoj;jy; vd;why; vd;d?

m) ,ja Jbg;G ,y;yhky; ,Ug;gJ

M) Rthrk; ,y;yhky; ,Ug;gJ

,) %is kPz;Lk; nray;glKbahj epiy

<) cly; mirT ,y;yhky; ,Ug;gJ

23) %is nraopoj;jYf;F mjpfkhd fhuzk; vd;d?

m) fhf;fha; typg;G

M) tapw;wpy; fhak; Vw;g;gLtjhy;

,) jiyapy; gyj;j fhak;

<) vYk;G KwpT

24) khpj;j cly; cWg;G jhdk; vd;why; vd;d?

m) tpyq;fplkpUe;J cWg;G vLj;jy;

M) khpj;j clypypUe;J cWg;G vLj;jy;

,) capWs;s clypy; ,Ue;J cWg;G vLj;jy;

<) ,ul;ilaha; gpwe;jth;fsplkpUe;J cWg;G vLj;jy;

25) vg;nghOJ xUth; fz; jhdj;jpw;F cWjpnkhop mspf;fyhk;?

m) xU egh; capUld; cs;sNghJ

M) khpj;j gpwF

,) kuzg;gLf;ifapy;

<) cwtpdh; my;yJ kw;wh;fspd; cldb Njit cs;s NghJ

26) khpj;j xUthpd; fz; kw;Wk; cWg;G jhdj;jpw;F ahh; cWjpnkhop mspf;f

Ntz;Lk;.

m) neUq;fp cwtpdh;  
M) ez;gh;fs;  
,) cld;Ntiy nra;gth;fs;  
<) kUj;Jth;fs;

- 27) fz;jhdk; nra;af; \$ba xUth; khpj;j gpd; vg;ngnOJ fz; tq;fpia njhlh;G  
nfhs;s Ntz;Lk;.

m) khpj;j cINdNa  
M) khpj;j 3 kzpNeuj;jpw;F gpwF  
,) khpj;j 2 kzpNeuj;jpw;F gpwF  
<) khpj;j 5 - 6 kzpNeuj;jpw;F gpwF

- 28) khpj;jTld; vj;jid kzpNeuj;jpw;Fs; fz;iz vLf;f Ntz;Lk;?

m) 3 kzpNeuk;  
M) 6 kzpNeuk;  
,) 12 kzpNeuk;  
<) 14 kzpNeuk;

- 29) fz; jhdk; nra;ag;gl;l fz; vj;jid ehl;fSf;Fs;shf nghUj;jg;gl Ntz;Lk;?

m) 7 - 10 ehl;fs;  
M) 10 - 20 ehl;fs;  
,) 20 - 30 ehl;fs;  
<) 30 - 40 ehl;fs;

- 30) cWg;G jhdj;jpw;F Kuzhz Fwpg;Gfs; ahit?

m) `r;. l. tp> n`gilb]; gp> eha;f;fbtpahjp  
M) mjpgd fhak;> tapw;Wf;fhak;> ghjpp;j EiuaPuy;  
,) M];j;Jkh> Njhy;Neha;> ,uj;j Nrhif  
<) ijuha;L tPf;fk;> Cl;lr;j;Jf; FiwT> <uy; nray;gl Kbahik

- 31) vj;jid kzpNeuj;jpw;Fs; rpWePufk; khw;wg;gl Ntz;Lk;.

m) 48 - 72 kzpNeuk;

M) 28 - 48 kzpNeuk;

,) 48 - 52 kzpNeuk;

<) 20 - 48 kzpNeuk;

32) cWg;G khw;wk; vd;why; vd;d?

m) kw;w egWf;F cWg;G nfhLj;jy;

M) capUs;sthplkpUe;J cWg;G ePf;fk; nra;jy;

,) khpj;j clypy; ,Ue;J cWg;G ePf;fk; nra;tJ

<) cWg;GjhdK; nra;gthplkpUe;J cWg;ig vLj;J ngw;Wf; nfhs;gthpd;

clypy; nghWj;Jjy;

33) jhdK; nra;ag;gl;l cWg;ig ahh; ngw;Wf; nfhs;s KbAk;?

m) cwtpdh; kl;Lk;

M) cld; gpwe;j rNfhju> rNfhjhpfs; kl;Lk;

,) ngw;Wf;nfhs;tjw;F cly;jFjp cs;s xU egh;

<) ngw;Nwhh;fs; kl;Lk;.

34) cWg;G jhdK; nra;tjw;F vq;Nf xUth; gjpT nra;ayhk;?

m) VjhtJ njhz;L epWtdq;fspy;

M) VjhtJ jdpahh; kUj;Jtkidfspy;

,) mq;fPfhuK; ngw;w cly; cWg;ig ngw;Wf;nfhs;fpw epWtdk;

<) VjhtJ muR kUj;Jtkidfspy;

35) gpd;tUtdtw;Ws; ve;j cWg;ig khpj;j gpwF jhdK; nra;af; \$lhJ?

m) rpWePufk;

M) ,jak;

,) fz;

<) jir

**gFjp - ,**

**nray;top mwpTj;jpwid mwptjw;fhd Neh;fhzy;**

<b>t. vz;</b>	<b>nghUs;</b>	<b>KW;wPTK; xg;Gf; nfhs;fpNwd</b>	<b>xg;Gf; nfhs;fpNwd</b>	<b>fUj;Jfs; ,y;yhky;</b>	<b>xg;Gf; nfhs; tpy;iy</b>	<b>tLikanr vjph;fpNwd</b>
1 .	kf;fSf;F ,uj;j jhdj;ijg; gw;wp gak; ,y;iy					
2 .	,uj;j jhdk; nra;tjhy; MNuhf;fpaj;jpw;F vjph;kiwhad jhf;fj;ij cz;lhf;Fk;					
3 ☆	kfspUk; ,uj;jk; jhdk; nra;ayhk;					
4 .	,uj;jk; jhdk; nra;j gpwF jhdk; nra;jtUf;F jdpq;gl;l czT Njit.					
5 .	gzj;jpw;f;fhf ,uj;jk; nfhLg;gth;fsplkpUe;J ,uj;jk; thq;FtJ ghJfhg;ghdJ					
6 ☆	,uj;j jhdk; nraltjw;f;fhf kf;fis Cf;fg;gLj;j Ntz;Lk;					
7 .	kf;fs; capNuhL ,Uf;Fk; nghOJ cWg;Gjhdk; nra;tjw;F Kd;tUthh;fs;					
8 ☆	kdpj cly; khpj;j gpd;Gk; gaDs;sjhf ,Uf;f Ntz;Lk;					
9 ☆	cWg;G jhdk; Njitcs;s VjhtJ xU egUf;F jhdk; nra;ayhk;					
10 ☆	VjhtJ egh; khpj;j gpwF jd;Dila cliy kUj;Jt Muha;r;rp;F jhdk; nra;ayhk;					
11 ☆	cWg;ig tpiyf;F tpw;gij xUth; Mjutspf;ff; \$lhJ					
12 ☆	cWg;G jhdj;jpw;F ifnahg;gk; ,Ltjw;F Kd;dhy; FLk;g egh;fSf;F jfty; njhptpf;f Ntz;Lk;.					

<b>t. vz;</b>	<b>nghUs;</b>	<b>KW;wPTK; xg;Gf; nfhs;fpNwd</b>	<b>xg;Gf; nfhs;fpNwd</b>	<b>fUj;Jfs; ,y;yhky;</b>	<b>xg;Gf; nfhs; tpy;iy</b>	<b>tLikanr vjph;fpNwd</b>
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13 ☆	cWg;G jhdk; nra;gthpd; FLk;gj;jpw;F cWg;ig ngw;Wf; nfhs;gtiug; gw;wpa jfty; mtrpakhf njhptpf;f Ntz;Lk;					
14 ☆	cWg;G jhdk; nra;tjhy; Njhw;wk; khWglhJ					
15 ☆	FLk;gj;jpy; xUth; khpj;J tpl;lhy; mtUila cWg;ig jhd nra;a FLk;g cWg;gpdh;fs; midtUk; tpUg;gk; njhptpf;f Ntz;Lk;.					

• - vjpHkiw thf;fpak;

☆ - NeHkiw thf;fpak;

## APPENDIX – I

# **SELF INSTRUCTIONAL MODULE ON BLOOD AND ORGAN DONATION**



**D. ANUSUYA, M,Sc.,(N)II Year  
Bishop's College of Nursing,  
Dharapuram.**

**SELF INSTRUCTION MODULE PLAN ON BLOOD AND  
ORGAN DONATION**

**GENERAL INFORMATION :**

Topic	-	Blood and organ donation
Date	-	
Time	-	
Place	-	Nanchiyampalayam.
Method of Teaching	-	Self
AV Aids	-	Book let
Group / Individual	-	Individual
Name of the Teacher	-	D. Anusuya, II Year M.Sc (N)

### **CENERAL OBJECTIVE:**

The group members will gain knowledge regarding blood and organ donation, develop desirable, attitude and skills in donating blood and organs.

### **SPECIFIC OBJECTIVES:**

The group members will able to,

- define blood donation
- explain physiology of blood.
- list out blood groups.
- describe the safe blood
- enumerate the donor selection
- explain screening tests
- describe care following blood donation
- define organ donation
- list out the type of donor
  
- enumerate the reasons for donation
- list out the donation criteria
- explain the contra - indications for organ donation
- describe eye donation

- explain donor card

## INTRODUCTION:-



There is no caste, creed, community, religion, race, nation and sex for blood. Blood donations bring self confidence in individuals, save the life of others; develop National integration and international understanding. Blood donation is globalizing nowadays. Awareness to donate blood has been created by motivation of eligible and prospective donors.

## BLOOD DONATION:



Blood donation is the donation of whole blood or its components such as blood cells and plasma from one person to another person.

## Physiology of Blood



There is about 5.6 litres of blood in an adult body. The blood is composed of plasma and blood cells (white Blood cells, red cells and platelets) Each Milli litre of blood contains 4 to 5 million red blood cells 4000 to 11,000 white blood cells 1.5 to 4 lakhs of platelets.

Plasma transport proteins, including antibodies clotting factors and nutrients like glucose for energy around the body.

White blood cells destroy the germs which invade the body and have a life of 7 hours.

Red blood cells transport oxygen through out the body and have a life of 120 days.

Platelets ensure to stop bleeding and have a life of 5 days.

### **TYPE OF BLOOD GROUPS:**



Human blood is classified in to four main groups A, B, AB and O. There are two major blood grouping systems ABO system (Blood group A, B, AB and O) and Rhesus system (Rh positive and Rh negative) based upon the types of antigen present in the red blood cells as well as the type of antibodies present in the plasma.

### **SAFE BLOOD**



Safe blood is the blood that does not contain any viruses, parasites, drugs, alcohol, chemical substances or other extraneous factors that might cause harm, danger or diseases to the recipient. People who donate blood should be in good health and should not suffer or have suffered from any serious illness. It should be free from HIV Virus. Hepatitis B and C malaria, filaria and syphilis.

A healthy person has healthy blood. Every one should safe guard their health by caring for precious life source, their blood. Good nutrition a clean and healthy, life style, proper prevention and early treatment of diseases contribute to healthy blood.

### **CRITERIA FOR BLOOD DONATION:**



1. Age : Between 18 – 65 years
2. Sex : Both sexes. Females should not donate during menstruation. Pregnant ladies should be deferred from donating blood.
3. Weight : Both sexes above 45Kg.
4. Hemoglobin : should be within normal limit (12.5-16 gm/dl)
5. Blood : systolic pressure should be 90-120 mm
6. pressure : of Hg and diastolic pressure should be 60-80 mm of Hg.
7. Surgical : Donors who have undergone procedures : operation should be deferred for at least 6 months
8. Interval : A Minimum of 90 days interval should be there from one donation to next donation.
9. Health : Should be free from AIDS, Syphilis, Status : malaria, Filarial, Malignant, Diseases, Cardio vascular diseases, Renal disease, Viral hepatitis, Epilepsy and bleeding disorders.)

### **Donor Selection:**

Donor Selection is based on the above mentioned 8 points and on a limited physical examination and a medical



history that will determine whether giving of blood will harm the donor or transfusion of the unit will harm the recipient. Careful donor selection contributes vitally to the safety of both donor and recipient.

### **Screening Tests:**



The blood collected from the donor should be subjected for the following screening tests which are mandatory.

8. HBS Ag (Australian Antigen)
9. HIV I and II (AIDS)
10. VDRL (Venereal disease)
11. MP (Malaria)
12. PCV (Packed cell volume)
13. Hb (Hemoglobin)
14. HCV (Hepatitis c virus)

Once the blood is confirmed negative from HBs Ag, HIV, VDRL, MP and HCV it is ready for transfusion.

Every blood donor is eligible for the blood screening test report. Blood donors are really noble persons.

### **Care Following Blood Donation:**



7. Enjoy light refreshment and rest for at least 10 -15 minutes.
8. Do not leave the donor site without the permission form staff member.
9. If you feel dizzy or faint lie-down or sit-down with your head between your knees until you feel well.
10. Drink more than usual amount of fluids
11. Leave the guaze or band aid for 4 -6hrs at the needle pricked site and do not get it wet.
12. Blood donation does not affect ones regular activities at all.

About 350 – 450 ml of blood is withdrawn from a person during each blood donation. After donation it takes 36 hrs for fluid volume and 21 days for blood cell count to return to normal. The minimum duration required between each blood donation is 3 months.

### Organ Donation:



Organ donation is the process of removal and transplantation of viable organs from donor to recipient. Recipients have to be matched with the donor organ in order to reduce the recipients of the new organ.

**Organs:** Heart, Lungs, Liver, Intestine, Kidney and pancreas

**Tissues:** Whole blood/ components Tendon, ligaments skin, heart valves, Bone, Bone marrow and blood vessels



A living donor can give a kidney, partial liver, bone marrow and blood to help save the life of another.

### Type of Donor:

#### Living or Deceased:



In Living donors, the donors remains alive and donates a renewable tissue, cell or fluid (e.g. Blood , skin) or donates an organ or part of an organ in which the remaining organ can regenerate or take on the work load of the rest of the organ (Primarily single kidney donation, partial donation of liver, small bowel or pancreas)

Deceased (formerly cadaver) are donors who have been declared brain dead and whose organs are kept viable by ventilator or other mechanism until they can be excised for transplantation.

### Reasons for Donation:



#### Living Related:

Living related donors donate to family members or friends in whom they have all emotional investment. The risk of surgery is off set by Psychological benefit of not losing some a one related to them, or not seeing them suffer the ill effects of waiting on a list.

### Paired Exchange:



A Paired exchange is a technique of matching willing living donors to compatible recipients, for example a

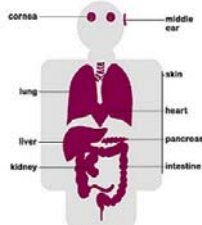
spouse may be more than willing to donate a kidney to their partner but can not since there is not a biological match. The second donor must match the first recipients to complete the pair exchange.

### Good Samaritan:



“Good Samaritan or altruistic” donation is giving donation to some one not well known to the donor. Some people choose to do this out of need to donate. Some donate to the next person on the list; others use some method of choosing a recipient based on criteria important to them.

### Compensated donation:



This general describes donors that donate their organs is exchange for some form the compensation usually monetary.

### Donation Criteria:



The general criteria for tissue donation are not as stringent as it is for organ donation. Almost any one who dies can be a tissue.

### Contra indications:

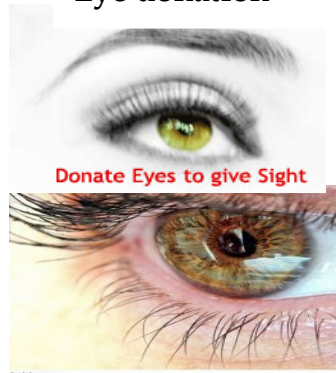
#### Absolute:

- ❖ Age older than 80 years



- ❖ HIV and hepatitis B and hepatitis injections
- ❖ Rabies
- ❖ Acute metastasis cancer
- ❖ General bacterial or viral infection
- ❖ Prolonged hypotension or hypothermia

### Eye donation



Eye donation can be pledged by the individual when a person is alive. Closed relatives only will be pledged eye donation after death of an individual. Eye bank should be contacted immediately after death of an eye donor. Within six hours the eye should be removed after death.

### Donor Card



Donor Cards in different languages and organ donation awareness campaigns are the focus of the public education group. The Donor card in English was the first to be launched on 12th January 1997. The Donor card enables people to express their wish to donate their organs. These Donor Cards are distributed along with a brochure entitled "A Priceless Gift," which explains the concept of organ donation.

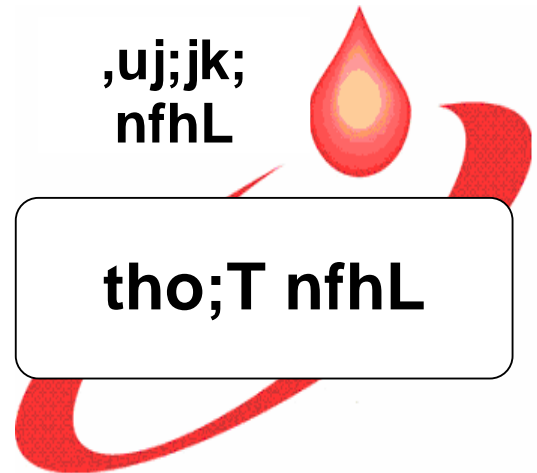
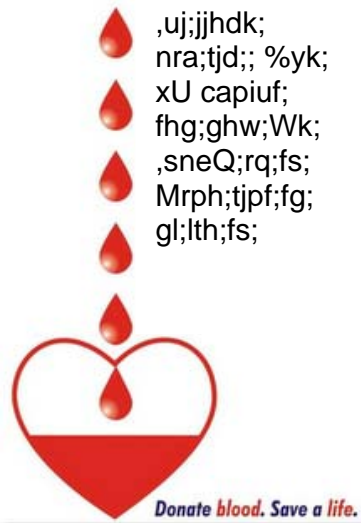
### CONCLUSION:

The young generations of our country should volunteer themselves and should march forward for the gift of blood and organ with the motto that there would be no buying and selling of blood, none would die for want of blood and organ required for transfusion and transplantation. The gift of love would flow from the healthy to the ailing as a natural social process. The youth should continue to donate blood and organ, this inspire others to join this festival of life.

## SUPPORT ORGAN & BLOOD DONATION TO



SAVE A LIFE



ntspaPL :

J. mDRah>

KJfiy ,uz;lhk; Mz;L>

gprg; nrtpypah; fy;Y}hp>

jhuhGuk;

### Kd;Diu :-



,uj;jj;jpw;F [hjp> ,dk;> Fyk;> rKjhak;> kjk;> nfhs;if>  
fyr;rhuk; kw;Wk; ghypdk;> ehL vd ve;j tpj;jpahRkK; fpilahJ.  
,uj;j jhdk; nra;tJ kdpjDila Ra ek;gpf;ifia ngUf;FfpwJ,  
kw;wth;fSila tho;it fhg;ghw;WfpwJ. Njr xw;Wik kw;Wk;  
cyfshtpa ey; czh;TfisAk; tsh;f;fpwJ. jw;NghJ ,uj;jjhdk; cyf  
kakhf;fg;gl;Ls;sJ. ,uj;jjhdk; nra;a Ntz;Lk; vd;w tpopg;Gzh;it  
jFjp tha;e;j jhdk; nra;gth;fsplkpUe;J vjph;ghh;f;fg;gLfpwJ.

### ,uj;jjhdk; :-



,uj;jjhdk; vd;gJ KO ,uj;jKk; my;yJ mjd; gFjp nry;fshd  
,uj;j nry; kw;Wk; gpsh];khit xU eghplkpUe;J kw;nwhU  
egUf;F jhdk; nra;tjhFk;.

### ,uj;jj;jpg; nray;ghLfs; :-



nghpath;fspd; clypy; 5 - 6 ypl;lh; ,uj;jk; fhzg;gLfpwJ.  
,uj;jk;> gpsh];kh kw;Wk; ,uj;j nry;fshy; MdJ (nts;is mZ> ,uj;j  
rptg;GZ> ,uj;j jl;il mZ). xt;nthU kp.yp ,uj;jj;jpYk; 4 Kjy; 5  
kpy;ypad; ,uj;j rptg;gZf;fSk;> 4000 - 11000 nts;is mZf;fSk;>  
1.5 Kjy; 4 yl;rk; jl;il mZf;fSk; cs;sd.

**gpsh];kh** Gujj;ij flj;JfpwJ. vjph; mZf;fisAk; NkYk; ,uj;jk; ciwYf;fhd  
vjph;g;G rf;jpfisAk; mspf;fpwJ.

**nts;is** mZf;fs; cLYf;Fs; EioAk; Ez;fpUkpfis mopf;fpwJ. ,J 7  
kzpNeuk; ,uj;jj;jpy; caph; thOk;.

**,uj;j rptg;gZf;fs;** cly; KOTjw;Fk; Mf;[prid flj;Jfpwd> kw;Wk; ,J 120  
ehl;fs; ,uj;jj;jpy; caph; thOk;.

jl;il mZf;fs; ,uj;j frpit jLj;J epWj;JfpwJ. ,J 5 ehl;fs; ,uj;jj;ppy; caph; thOk;.

**,uj;jj;jpd; tiffs; :-**



kdpj ,uj;jk; Kf;fpakhd ehd;F tiffspy; cs;sd. v> gp> vgp> x. mtw;wpy; ,uz;L Kf;fpakhd ,uj;j tif mikg;G v gp x kw;Wk; Mh; `r; mikg;G (Mh; `r; - Neh;> Mh; `r; - vjph;) ,itfs; ,uj;j rptg;gZf;fs; cs;s Md;l;b[d; tif mbg;gilapYk; mJNghyNt gpsh];khtpYs;s Mz;l;bghb tiffspd; mbg;gilapYk; tifg;gLj;jg;gLfpd;wJ.

**ghJfhg;ghd ,uj;jk; :-**



ghJfhg;ghd ,uj;jk; vd;gJ ngw;Wf; nfhs;gtUf;F nrYj;jg;gLk; ,uj;jj;ppy; itu];> xl;Lz;zpfs;> kUe;Jfs;> kJ> Ntjpg;nghUl;fs;> jPikahd> mghafukhd Neha; tUtpf;ff;\$ba kw;Wk; gpw Mgj;jhd fhuzpfs; VJk; ,y;yhj ,uj;jNk ghJfhg;ghd ,uj;jk; MFk;. ,uj;jjhdk; nra;gth;fs; ey;y cly; eyj;Jld; ,Ug;gJ mtrpak;. ve;j tpjkhd RftPdk;; cs;sth;fshfTk; my;yJ ,jw;F Kd; fLikahd Nehahy; ghjpf;f glhjth;fshfTk; ,Uf;f Ntz;Lk;. vr;. l. tp itu];> n`gilb]; gp kw;Wk; rp> kNyhphah> ahidf;fhy; Neha; kw;Wk; NkfNeha; ,itfs; ,y;yhj ,uj;jkhf ,Uf;f Ntz;Lk;.

cly; eykhd thplk; kl;LNk MNuhf;fpakhd ,uj;jk; ,Uf;Fk;. xt;nthU tUk; jq;fspd; eykhd thof;if Kiwfis nfhz;L ey;y ,uj;jj;jhy; cly; eyj;ij ghJfhj;Jf; nfhs;s Ntz;Lk;. ey;y Rj;jhd czT cl;nfhs;s Ntz;Lk;. Neha; tha;gl;l clNdNa kUj;Jt rpfr;ir kw;Wk; Kd;ndr;rhpf;ifahd eltb;iffs; %yk; ehk; MNuhf;fpakhd ,uj;jj;ij jf;f itj;Jf; nfhs;syhk;.

**,uj;jjhdk; nra;tjw;f;fhhd jFjpfs; :-**





- 1 taJ 18 Kjy; 65 taJ tiu
- 2 ghy; ,dk; ,UghyUk; kfsph; khjtplha; fhyq;fspYk;>  
kfg;Ngw;wpd; NghJk; ,uj;jjhdk;  
nra;af;\$lhJ.
- 3 vil ,UghyUk; 45 fp.fp Nky; ,Uf;f Ntz;Lk;
- 4 ,uj;j rptg;gZf;fs; 12.5Kjy; 16 fpuhk;/nl.yp ,Uf;f Ntz;Lk;.  
(`PNkhFNshgpd;)
- 5 ,uj;j mOj;jk; ,ja fPoiwfs; RUq;Fk; NghJ 90 - 120 /kp.kp  
`r;. [p kw;Wk; ,ja rPoiwfs; tphptilAk; NghJ  
60 - 80/kp.kp `r; [p ,Uf;f Ntz;Lk;.
- 6 mWit rpfpr;ir Kiwfs; mWit rpfpr;ir nra;jth;fs; Fiwe;j gl;rk; 6  
khjq;fSf;F ,uj;jjhdk; nfhLf;f\$lhJ.
- 7 fhy ,ilntsp xU ,uj;j jhdj;jpw;Fk; kw;nwhU ,uj;j  
jhdj;jpw;Fk; ,ilNa Fiwe;jgl;rk; 90 ehl;fs;  
,ilntsp ,Uf;f Ntz;Lk;.
- 8 MNuhf;fpa epiy ,uj;jjhdk; nra;gth;fs; va;l;];> NkNeha;>  
kNyhhpah> ahidf;fhy; Neha;>  
Gw;WNeha;> ,Uja Neha;fs;> rpWePuf  
Neha;> <uy; Neha;fs;> fhf;fha; typg;G  
kw;Wk; ,uj;jNghf;F Neha;fs; ,itfs; ahTk;  
,y;yhjpuF;f Ntz;Lk;.

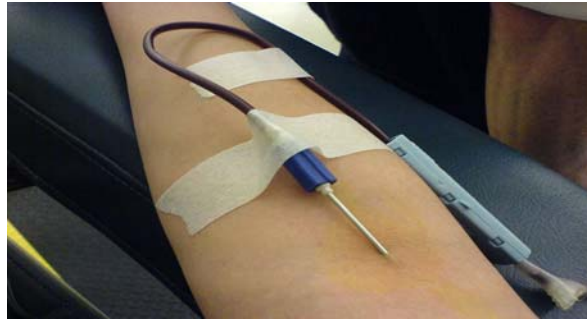
#### **jhdK; nra;gtiu Njh;e;njLj;jy; :-**



NkNy Fwpg;gpl;l vl;L jFjpf; mbg;gilapYk; kw;Wk;  
tiuKiw nra;ag;gl;l cly; jFjp Njh;T mbg;gilapYk;> nfhLg;gth;  
kw;Wk; ngw;Wf; nfhs;gth;fspd; kUj;Jt Fwpg;Gfspd; gb  
,UtUf;Fk; vt;tpjkhd ghjPg;Gk;> jPq;Fk; epfohj gb ghH;j;Jf;  
nfhs;s Ntz;Lk;. jhdK; nra;gtiu ftdkhd Kiwapy; Njh;T nra;tJ kpf  
Kf;fpakhDJ> vnddpy; ,J nfhLg;gth; kw;Wk; ngw;W nfhs;gth;  
,UtUf;FNk ghJfhg;ghdJ.



**,uj;j ghpNrhjid :-**



,uj;j jhdk; nra;gthplkpUe;J Nrfhpf;fg;gl;l ,uj;jj;ij fPo;f;fz;l ,uj;j ghpNrhjidfs; nra;a Ntz;Lk;.

8. `r;. gp. v]; v[p
9. `r; l tp I kw;Wk; II
10. tp bMh; vy;
11. kNyhhpah
12. gprptp
13. `r;gp
14. `r; rp tp

Nkw;fz;l Nrhjidfis nra;J `r; gp v]; v[p> `r; l tp> tpbMh; vy;>  
kNyhphah kw;Wk; `r; rp tp fpUkpfs; ,y;iy vd;W mwpe;j gpwF ,uj;jjhdk;  
nra;ayhk;.

,uj;jjhdk; nra;Ak; xt;nthU egUk; ghpNrhjidf; Fl;gLj;j jFjpailath;fs;.  
,uj;j jhdk; nra;Ak; xt;nthUtUk; cah;e;jth;fshf fUjg;gLthh;fs;.

**,uj;j jhdk; nra;j gpwF nra;a Ntz;baitfs; :-**

7. vjhtJ jput czT cl;nfhs;syhk; kw;Wk; 10 - 15 epkplq;fs; Xa;T vLj;Jf; nfhs;syhk;.
8. jhdk; nra;j gpwF Copah;fspd; mDkjpapd;wp ntspapy; nry;yf;\$lhJ.
9. kaf;f epiy my;y J}f;f epiy Nghd;Nwh ,Ue;jhy; gLj;Jf; nfhs;syhk; my;yJ cl;fhh;e;J jiyia Kl;bapd; kPJ itj;J rhjhuz epiy czh;Uk; tiu mkh;e;jpUf;fyhk;.
10. kw;w ehl;fistpl mjpf msT jput czT vLj;Jf; nfhs;syhk;.



11. Crp Fj;jpa ,lj;jpy; gQ;R my;yJ Ngd;NI[; itj;J 4 Kjy; 6 kzp  
Neuk; tiu <uk; glhky; ghh;j;Jf; nfhs;s Ntz;Lk;.
12. ,uj;jjhdk; nra;tJ ,ay;G epiyia vg;nghOJk; ghjpf;fhJ.

xt;nthU ,uj;j jhdj;jpd; NghJk; fpl;l;j;l 350 - 450 kp.yp ,uj;jk; vLj;Jf;  
nfhs;sg;gLk;. ,uj;j jhdk; nra;j 36 kzpNeuj;jpw;Fs; mNj msT jputKk; kw;Wk;  
21 ehl;fSf;Fs; ,uj;j nry;fspy; ,ay;ghd vz;zpf;ifAk; jpUk;g te;J tpLk;.  
,uj;jjhdk; nra;a Fiwe;j gl;r fhy ,ilntsp 3 khjq;fs; MFk;.

### cWg;Gjhdk; :-



cWg;Gj;jhdK; vd;gJ caph; cs;s cWg;Gfis  
nfhLf;fg;gthplkpUe;J vLj;J Njit cs;sth;fSf;F nghUj;JtJ.  
jhdk; ngw;w cWg;G ngw;W nfhs;gthpd; cWg;Gld;  
xj;Jtu Ntz;Lk;.

### cWg;Gfs; :-

,jak;> EiuaPuy;> fy;yPuy;> Fly;> rpWePufk; kw;Wk;  
fizak;.

jpRf;fs; :

,uj;jk;/jirehh;> vOk;Gfis gpidf;Fk; jirehh;> Njhy;> ,ja  
thy;Tfs;> vYk;G> vYk;G k[;ir> ,uj;j ehsq;fs;.

rpWePufk;> gFjp<uy;> vYk;Gk[;ir kw;Wk; ,uj;jk; Nghd;witfs;  
vy;yhk; capNuhL ,Uf;Fk; nghOJ jhdK; nra;ayhk;. ,jdhy; kw;wth;fSila tho;it  
fhf;fyhk;.

### jhdK; nra;gthpd; tiffs; :-

#### capNuhL ,Uf;Fk; nghOJ cWg;G jhdK; nra;gth;fs; :-

jhdK; nra;gth;fs; capUld; tho;gth;fs; kw;Wk;  
GJg;gpf;ff;\$ba jpRf;fs;> nry;> jputk; mitfis jhdK; nra;yhk;  
my;yJ xU cWg;G my;yJ gFjp cWg;ig jhdK; nra;ayhk;.



cUthf;ff; \$ba my;yJ gFjpcWg;Gfs; %yk; ,aq;f \$ba tifapy;  
capUld; cs;sth;fs; jhdk; nra;thh;fs;.

### khpj;j gpwF cWg;G jhdk; nra;gth;fs; :-

%is nraypoe;j gpwF kw;Wk; khpj;j gpwF cly; cWg;Gfis (nray; cs;s  
cWg;Gfis) jhdk; nra;thh;fs;.

### jhdk; nra;tjw;fhd fhuzq;fs; :-

#### cwT Kiwfs; :-



jhdk; nra;gth;fs; FLk;g egUf;fhf my;yJ ez;gh;fSf;fhf  
czh;r;rpG+h;tkhf cWg;G jhdk; nra;thh;fs;. cwtpdh;fs; jq;fis  
tpl;L gphpe;J tplf;\$lhJ vd;gjw;f;fhf cwtpdh; cWg;G jhdk;  
nra;J.

### ,izgwpkhw;wk; :-



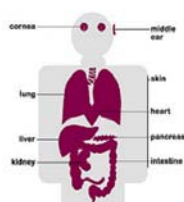
cWg;G jhd ,izghpkhw;wk; vd;gJ jhdk; nra;a  
tpUg;gKs;stUila cWg;ig nghUj;jKs;s xU egUf;F jhdk; nra;tJ.  
cjhuzkhf xU fztUf;F kiztp rpWePufk; jhdk; nra;a  
tpUk;gpdhYk;> cWg;G nghUj;jkpy;yhj epiyapy; nghUj;jKs;s  
xUthpd; cWg;ig fz;lwpe;J nghUj;JtJ.

### cWg;G jhdj;jpy; gpwh; eyd; fUJgth; :-



cWg;G jhdk; nra;gth; Kd; gpd; njhpahj egUf;F jhdk;  
nra;gth;fs;. jhdk; nra;a tpUk;Gk; rpyh; Njit cs;sth;fSf;F  
toq;Fth;. rpyh; cWg;G jhd gl;baypy; cs;s mLj;j egUf;F  
toq;Fth;. mjhtJ ahh; cWg;ig Vw;Wf; nfhs;s cly; jFjp  
cs;sth;fNsh mth;fSf;F toq;fg;gLk;.

### <L nra;Ak; jhdk; :-



<L nra;Ak; jhdk; vd;gJ rpyh; gzj;jpw;fhf my;yJ xU  
rpytw;iw vjph;ghh;j;J jhdk; nra;thh;fs;.

**cWg;GjhdK; nra;tjw;f;fhd jFjpf; :-**



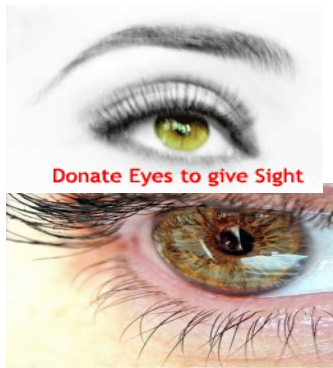
cWg;G jhdk; nra;tJ fl;lhaky;y. ahuhtJ khpj;jhy;  
cWg;Gf;fis jhdk; nra;ayhk;.

**cWg;G jhdk; nra;af; \$lhjth;fs; :-**



7. 80 taJf;F Nky;
8. vr;. l>.tp kw;Wk; `gilb]; gp
9. eha;fb Neha;
10. Gw;WNeha;
11. ghf;Bhpah my;yJ itu]; fpUkpfs;.
12. neLehs; ,uj;j mOj;jk; my;yJ ,ay;Gf;F  
khwhd Fiwe;j cly; ntg;g epiy.

**fz; jhdk; :-**



xU egh; capNuhL ,Uf;Fk; nghONj fz; jhdk; nra;Ntd;  
vd;W cWjpnkhop mspf;f Ntz;Lk;. fz;jhdk; nra;af;\$ba egh;  
khpj;jgpd; me;j egUila neUq;fpa cwtphd;fs; fz; jhdj;jpw;F  
rk;kjk; njhpf;f Ntz;Lk;. fz;jhdk; nra;af; \$ba xUth; khpj;j cINd  
fz; tq;fPf;F njhpag;gLj;j Ntz;Lk;. mLj;j 6 kzp Neu;j;jpw;Fs;  
khpj;jthplkpUe;J fz; ePf;fg;gl Ntz;Lk;.

## cWg;G jhd ml;il :-

ehq;fs; cWg;Gjhdj;jpw;F  
cWjpnkhop mspj;J GJikia cUthf;fp  
,Uf;fpNwhk;.



ehq;fs; cWg;G jhdj;jpw;F cWjpnkhop mspj;J ehq;fs; GJikia  
cUthf;FfpNwhk;.

cWg;Gjhd ml;il gy nkhofspy; cs;sd> kw;Wk; r%f fy;tp Fof;fs;  
Kfhk;fs; %yk; cWg;Gjhd tpopg;Gzh;T mspf;fg;gLfpwJ. 1977 [dthp 12e;  
Njjp Kj; Kjypy; Mq;fpy;jpy; cWg;Gjhd ml;il ntspaplg;gl;J. ,e;j  
cWg;Gjhd ml;il kf;fspd; cWg;G jhd tpUg;gj;ij njhptpf;f cjtphf ,Uf;fpwJ.  
cWg;Gjhd ml;il 'xU tpiykjpg;gw;w ghpR" vd;w jiyg;gpy; ntspaplg;gLfpwJ.  
mJ kf;fSf;F cWg;G jhdj;jpd; fUj;ij tpsf;FfpwJ.

## KbTiu :-

ekJ ehl;bd; ,se;jiyKiwapdh; ,uj;j jhdk; kw;Wk; cWg;G jhdj;jpw;F  
Fwpp;NfhSld; jhkhfNt Kd; tu Ntz;Lk;. ,uj;jk; kw;Wk; cWg;Gfis tpw;fNth  
thq;fNth \$lhJ. ,uj;jk; kw;Wk; cWg;Gfs; ,y;iy vd;W ahUk; khpf;ff;\$lhJ. cly;  
eyk; cs;sth;fspkUe;J Njit cs;sth;fSf;F ,e;j md;ghd ghpR fpilj;J Njrj;jpd;  
r%f Nritfs; tsul;Lk; ,isQh;fs; njhlh;e;J ,uj;j jhdk; kw;Wk; cWg;G jhdk; nra;J  
kw;wth;ifAk; Cf;fg; gLj;jp ,jpy; fye;J nfhs;s nra;ayhk;.

caph;fis fhg;ghw;w



**APPENDIX -J**  
**SCORES RELATED TO KNOWLEDGE REGARDING BLOOD AND**  
**ORGAN DONATION AMONG ADOLESCENTS**

<b>Serial No</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
1.	1	0	0	0
2.	0	0	1	0
3.	0	0	1	0
4.	0	1	0	0
5.	1	0	0	0
6.	1	0	0	0
7.	0	0	1	0
8.	0	1	0	0
9.	0	1	0	0
10.	1	0	0	0
11.	0	0	0	1
12.	1	0	0	0
13.	1	0	0	0
14.	0	1	0	0
15.	0	1	0	0
16.	1	0	0	0
17.	0	0	1	0
18.	1	0	0	0
19.	1	0	0	0
20.	1	0	0	0
21.	1	0	0	0
22.	0	0	1	0
23.	0	0	1	0
24.	0	1	0	0

